

VPDES PERMIT PROGRAM FACT SHEET

This document gives pertinent information concerning the VPDES Permit listed below. This permit is being processed as a MAJOR INDUSTRIAL permit.

1. PERMIT NO.: VA0004162

EXPIRATION DATE: November 15, 2015

2. FACILITY NAME AND LOCAL MAILING ADDRESS

FACILITY LOCATION ADDRESS (IF DIFFERENT)

International Paper - Franklin Mill  
34040 Union Camp Drive  
Franklin, VA 23851

same

CONTACT AT FACILITY:

NAME: Kyle Duffy  
TITLE: EHS Manager  
PHONE: (757) 569-4536

CONTACT AT LOCATION ADDRESS

NAME: Raye Moore  
TITLE:  
PHONE: (757) 635-9159

3. OWNER CONTACT: (TO RECEIVE PERMIT)

NAME: Kyle Duffy  
TITLE: EHS Manager  
COMPANY NAME: (IF DIFFERENT)  
ADDRESS: 34040 Union Camp Drive  
Franklin, VA 23851  
PHONE: (757) 569-4536  
EMAIL:

CONSULTANT CONTACT:

NAME:  
FIRM NAME:  
ADDRESS:

PHONE: ( )  
EMAIL:

4. PERMIT DRAFTED BY:

DEQ, Water Permits, Regional Office  
*Deanna Austin*  
Permit Writer(s): D.L. Thompson  
Reviewed By: *Deanna Austin DOA*

Date(s): 6-2015

Date(s): *7/22/15 - 8/28/15, 9/14/15*

5. PERMIT ACTION:

( ) Issuance      (X) Reissuance      ( ) Revoke & Reissue      ( ) Owner Modification  
( ) Board Modification      ( ) Change of Ownership/Name [Effective Date: ]

6. SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:

Attachment <u>1</u>	Site Inspection Report/Memorandum
Attachment <u>2</u>	Discharge Location/Topographic Map
Attachment <u>3</u>	Schematic/Plans & Specs/Site Map/Water Balance
Attachment <u>4</u>	TABLE I - Discharge/Outfall Description
Attachment <u>5</u>	TABLE II - Effluent Monitoring/Limitations
Attachment <u>6</u>	Effluent Limitations/Monitoring Rationale/Suitable Data/Antidegradation/Antibacksliding
Attachment <u>7</u>	Special Conditions Rationale
Attachment <u>8</u>	Material Storage
Attachment <u>9</u>	Toxics Monitoring/Toxics Reduction/WET Limit Rationale
Attachment <u>10</u>	Receiving Waters Info./Tier Determination/STORET Data/Stream Modeling/303(d) Listed Segments
Attachment <u>11</u>	TABLE III(a) and TABLE III(b) - Change Sheets
Attachment <u>12</u>	NPDES Industrial Permit Rating Worksheet
Attachment <u>13</u>	Public Participation/Pertinent Correspondence

APPLICATION COMPLETE: June 19, 2015

7. PERMIT CHARACTERIZATION: (Check as many as appropriate)

<input checked="" type="checkbox"/> Existing Discharge	<input checked="" type="checkbox"/> Effluent Limited
<input type="checkbox"/> Proposed Discharge	<input checked="" type="checkbox"/> Water Quality Limited
<input type="checkbox"/> Municipal	<input type="checkbox"/> WET Limit
SIC Code(s)	<input type="checkbox"/> Interim Limits in Permit
<input checked="" type="checkbox"/> Industrial	<input type="checkbox"/> Interim Limits in Other Document
SIC Code(s) 2611, 2621, 2679	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> POTW	<input type="checkbox"/> Site Specific WQ Criteria
<input type="checkbox"/> PVOTW	<input type="checkbox"/> Variance to WQ Standards
<input checked="" type="checkbox"/> Private	<input type="checkbox"/> Water Effects Ratio
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Discharge to 303(d) Listed Segment
<input type="checkbox"/> State	<input checked="" type="checkbox"/> Toxics Management Program Required
<input type="checkbox"/> Publicly-Owned Industrial	<input type="checkbox"/> Toxics Reduction Evaluation
	<input checked="" type="checkbox"/> Storm Water Management Plan
	<input type="checkbox"/> Pretreatment Program Required
	<input checked="" type="checkbox"/> Possible Interstate Effect
	<input type="checkbox"/> CBP Significant Dischargers List

8. Outfall No(s).

Receiving Stream

001 (and internal  
Outfall 103)

Blackwater River  
River Mile: 5ABLW000.62  
Basin: Chowan and Dismal Swamp  
Subbasin: Chowan River  
Section: 1  
Class: II  
Special Standard(s): NEW-21  
7-Day/10-Year Low Flow: 1.36 MGD (Nov-Mar)  
1-Day/10-Year Low Flow: 0.22 MGD (Nov-Mar)  
30-Day/5-Year Low Flow: 29.3 MGD (Nov-Mar)  
Harmonic Mean Flow: 702.2 MGD (Nov-Mar)  
Tidal: YES

002

Blackwater River  
River Mile: 5ABLW0013.73  
Basin: Chowan and Dismal Swamp  
Subbasin: Chowan River  
Section: 1  
Class: II  
Special Standard: NEW-21  
7-Day/10-Year Low Flow: 1.36 MGD (Nov-Mar)  
1-Day/10-Year Low Flow: 0.22 MGD (Nov-Mar)  
30-Day/5-Year Low Flow: 29.3 MGD (Nov-Mar)  
Harmonic Mean Flow: 702.2 MGD (Nov-Mar)  
Tidal: YES

006, 007, 010,  
012, 013, 014

Washole Creek  
River Mile: 5AKNG000.04  
Basin: Chowan and Dismal Swamp  
Subbasin: Chowan River  
Section: 2  
Class: VII  
Special Standard: NEW-21  
7-Day/10-Year Low Flow: 0 MGD  
1-Day/10-Year Low Flow: N/A MGD  
30-Day/5-Year Low Flow: N/A MGD  
Harmonic Mean Flow: N/A MGD  
Tidal: NO

008, 009, 011

Kingsale Swamp  
River Mile: 5AKNG004.66  
Basin: Chowan and Dismal Swamp  
Subbasin: Chowan River  
Section: 2  
Class: VII  
Special Standard: NEW-21  
7-Day/10-Year Low Flow: 0 MGD  
1-Day/10-Year Low Flow: N/A MGD  
30-Day/5-Year Low Flow: N/A MGD  
Harmonic Mean Flow: N/A MGD  
Tidal: NO

015

Beaverdam Swamp  
River Mile:  
Basin: Chowan and Dismal Swamp  
Subbasin: Chowan River  
Section: 2  
Class: VII  
Special Standard: NEW-21  
7-Day/10-Year Low Flow: 0 MGD  
1-Day/10-Year Low Flow: N/A MGD  
30-Day/5-Year Low Flow: N/A MGD  
Harmonic Mean Flow: N/A MGD  
Tidal: NO

9. **FACILITY DESCRIPTION:** Describe the type facility from which the discharges originate.

Existing industrial discharge resulting from the manufacture of fluff pulp, tissue and recycled (converted) papers, which are generated from raw timber, purchased wood chips and sorted office waste paper from the fiber recycling plant. Production facilities, administrative offices and warehousing operations are located on the mill site. International Paper - Franklin Mill operates one machine which produces fluff pulp. Operations include a pulp mill, in addition to a new process of producing tissue by TAK Investments, Inc., which includes a deinking facility and a tissue manufacturing and converting process to manufacture recycled tissue. A point source discharge of process wastewater from all ongoing operations occurs during a two month period at outfall 001.

10. **LICENSED OPERATOR REQUIREMENTS:** ( ) No (X) Yes Class: I

11. **RELIABILITY CLASS:** Industrial Facility - NA

12. **SITE INSPECTION DATE:** Nov 6-7, 2013 **REPORT DATE:** December 10, 2013

**Performed By:** Clyde Gantt

**SEE ATTACHMENT 1**

13. **DISCHARGE(S) LOCATION DESCRIPTION:** Provide USGS Topo which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Outfall 001: Name of Topo: Riverdale Quadrant No.: 05C

Outfalls 002, 006, Name of Topo: Franklin Quadrant No.: 05B  
007, 010, 012,  
013, 014, 015

Outfalls 008, Name of Topo: Holland Quadrant No.: 05A  
009, 011

SEE ATTACHMENT 2

14. ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.

SEE ATTACHMENT 3

15. DISCHARGE DESCRIPTION: SEE ATTACHMENT 4

16. COMBINED TOTAL FLOW:

TOTAL: 126 MGD (for public notice)

PROCESS FLOW: 125 MGD (IND.)

NONPROCESS/RAINFALL DEPENDENT FLOW: 1 MGD (Est.)

DESIGN FLOW: \_\_\_\_\_ MGD (MUN.)

17. STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS:  
(Check all which are appropriate)

- ☒ State Water Control Law  
☒ Clean Water Act  
☒ VPDES Permit Regulation (9 VAC 25-31-10 et seq.)  
☒ EPA NPDES Regulation (Federal Register)  
☒ EPA Effluent Guidelines (40 CFR 133 or 400 - 471)  
☒ Water Quality Standards (9 VAC 25-260-5 et seq.)  
☒ Wasteload Allocation from a TMDL or River Basin Plan

18. EFFLUENT LIMITATIONS/MONITORING: Provide all limitations and monitoring requirements being placed on each outfall.

SEE TABLE II - ATTACHMENT 5

19. EFFLUENT LIMITATIONS/MONITORING RATIONALE: Attach any analyses of an outfall by individual toxic parameter. As a minimum, it will include: statistics summary (number of data values, quantification level, expected value, variance, covariance, 97th percentile, and statistical method); wasteload allocation (acute, chronic and human health); effluent limitations determination; input data listing. Include all calculations used for each outfall and set of effluent limits and those used in any model(s). Include all calculations/documentation of any antidegradation or anti-backsliding issues in the development of any limitations; complete the review statements below. Provide a rationale for limiting internal waste streams and indicator pollutants. Attach chlorine mass balance calculations, if performed. Attach any additional information used to develop the limitations, including any applicable water quality standards calculations (acute, chronic and human health).

OTHER CONSIDERATIONS IN LIMITATIONS DEVELOPMENT:

VARIANCES/ALTERNATE LIMITATIONS: Provide justification or refutation rationale for requested variances or alternatives to required permit conditions/limitations. This includes, but is not limited to: waivers from testing requirements; variances from technology guidelines or water quality standards; WER/translator study consideration; variances from standard permit limits/conditions.

N/A



**SUITABLE DATA:** In what, if any, effluent data were considered in the establishment of effluent limitations and provide all appropriate information/calculations.

All suitable effluent data were reviewed.

**ANTIDEGRADATION REVIEW:** Provide all appropriate information/calculations for the antidegradation review.

Outfall 001 is maintained as a Tier 1 water based on discharges to impaired stream. Outfalls 008, 009, and 011 discharge to intermittent streams and therefore are a Tier 1. With the receiving stream classification as tier 1, no further review is needed. All other outfalls a Tier cannot be determined since the receiving streams are Category 4C with Aquatic Life Use impairments due to naturally low dissolved oxygen.

Permit limits have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

**ANTIBACKSLIDING REVIEW:** Indicate if antibacksliding applies to this permit and, if so, provide all appropriate information.

There are no backsliding issues to address in this permit. Final effluent concentration limitations for TSS and BOD at outfall 001 increased with this reissuance, but these limitations are production based limits based on Federal Effluent Guidelines and are not subject to antibacksliding requirements. Annual load limitations based on a Water Quality Management Plan remain in effect for TSS and BOD at outfall 001 and have not changed.

SEE ATTACHMENT 6

20. **SPECIAL CONDITIONS RATIONALE:** Provide a rationale for each of the permit's special conditions.

SEE ATTACHMENT 7

21. **TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE:** Provide the justification for any toxics monitoring program and/or toxics reduction program and WET limit.

SEE ATTACHMENT 9

22. **SLUDGE DISPOSAL PLAN:** Provide a description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit.

N/A

23. **MATERIAL STORED:** List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

SEE ATTACHMENT 8

24. **RECEIVING WATERS INFORMATION:** Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-5 et seq.)]. Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied. Attach any memoranda or other information which helped to develop permit conditions (i.e. tier determinations, PReP complaints, special water quality studies, STORET data and other biological and/or chemical data, etc.

SEE ATTACHMENT 10

25. **305(b)/303(d) Listed Segments:** Indicate if the facility discharges to a segment that is listed on the current 303(d) list and, if so, provide all appropriate information/calculations.

All Outfalls discharge to impaired 303d listed streams.

Outfall 001 discharges to the impaired lower Blackwater stream segment, VAT-K36R\_BLW05A08. This segment is impaired for Aquatic Life Use - benthics and naturally low DO and for Fish Consumption Use - mercury.

Outfall 002 discharges to the middle Blackwater impaired segment, VAT-K36R\_BLW03A08. This segment is impaired for Aquatic Life Use - naturally occurring low DO and Fish Consumption Use -mercury.

Outfalls 6,7,10 and 12-14 discharge to impaired segment VAT-K36R\_BLW04A08. This segment is impaired for Aquatic Life Use - naturally occurring low DO, Recreation Use - Ecoli and Fish Consumption Use -mercury.

Outfalls 8, 9 and 11 discharge to impaired Unnamed tribs to Blackwater (VAT-K36R\_ZZZ01A00) and 015 to impaired Blackwater segment, VAT-K36R\_BLW02C10. These segments are impaired for Fish Consumption Use -mercury.

A Natural Conditions assessment was completed to confirm the DO impairments are due to natural conditions and therefore the development of a TMDL is not required. (Blackwater Dissolved Oxygen Assessment for Blackwater Swamp Waters: Approved 4/8/2010 \*See TMDL\_Attachment\_1) The current Assessment Category is "4C - Not needing a TMDL". During the next Triennial Review, this section of the Blackwater River is proposed to be changed from a Class II to a Class VII swamp water. Part of the Natural Conditions process is to determine anthropogenic impacts, if any, to the impairments. IP VA0004162 was identified as a point source discharging into the Blackwater River. Even so, data from the facility showed that it was very well controlled and not impacting the DO levels in the River. The D.O. condition is further addressed in Special Condition #14 "In-stream D.O. Monitoring During the Discharge Season, November-March". This condition, which was agreed upon during previous permit reissuance's provides in-stream WQ protection for D.O.; no additional monitoring is proposed at this time.

SEE ATTACHMENT 10

26. **CHANGES TO PERMIT:** Use TABLE III(a) to record any changes from the previous permit and the rationale for those changes. Use TABLE III(b) to record any changes made to the permit during the permit processing period and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 11

27. NPDES INDUSTRIAL PERMIT RATING WORKSHEET:

TOTAL SCORE: 140 SEE ATTACHMENT 12

28. DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from DEQ planning.

29. PUBLIC PARTICIPATION: Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH/DSS COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and the Div. of Shellfish Sanitation and noted how resolved.

The VDH reviewed the application and waived their right to comment and/or object on the adequacy of the draft permit. Letter dated June 17, 2015.

The DSS reviewed the application and by Memorandum dated 6/22/15; this project will not affect shellfish growing waters.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

Fish & Wildlife (8-13-15) and DCR (8-25-16) provided review of the application for T&E. No comments were offered other than a request to send appl to NC review for T&E.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

PUBLIC NOTICE INFORMATION:

Persons may comment in writing or by e-mail to the DEQ on the proposed reissuance of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Debra L. Thompson at: Department of Environmental Quality (DEQ), Tidewater Regional Office, 5636 Southern Boulevard, Virginia Beach, VA 23462. Telephone: 757-518-2162 E-mail: [debra.thompson@deq.virginia.gov](mailto:debra.thompson@deq.virginia.gov)

Following the comment period, the Board will make a determination regarding the proposed reissuance. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:

This permit will continue to address/incorporate the new process at the repurposed International Paper Franklin Mill. The new process continues and is currently still at Phase I production levels and includes, a deinking facility, tissue manufacturing and converting process by TAK Investments, Inc. Production is proposed to increase over time in four phases. Therefore, final effluent limitations at outfall 001 for BOD and TSS are presented in the permit and are calculated in four phases corresponding to the production rate and effluent flow associated with the four implementation phases of the new process. Currently, the new process is still operating within phase I.

ATTACHMENT 1

SITE INSPECTION REPORT/MEMORANDUM



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

### TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Doug Domenech  
Secretary of Natural Resources

David K. Paylor  
Director

Maria R. Nold  
Regional Director

December 10, 2013

Via Email

Ms. Jacquelyn Taylor  
International Paper  
34030 Union Camp Drive  
Franklin, VA 23851

Re: Inspection Report  
International Paper (VA0004162)

Dear Ms. Taylor:

Enclosed is a copy of the report prepared for the inspection conducted at International Paper on November 6-7, 2013. Please note the requirement and recommendation cited in the "Compliance Recommendations for Action" in the report summary.

If you have any questions regarding this report, please feel free to contact me at the above address, telephone (757) 518-2114 or email [clyde.gantt@deq.virginia.gov](mailto:clyde.gantt@deq.virginia.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Clyde K. Gantt".

Clyde K. Gantt  
VPDES/VPA Permit Inspector

Note: This letter is not intended as a case decision under the Virginia Administrative Process Act, Va. Code § 2.2-4000 *et seq* (APA).

Enclosure

cc: DEQ/TRO: File

1-2

Facility:	INTERNATIONAL PAPER
County/city:	FRANKLIN

VPDES NO.	VA0004162
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**DEPARTMENT OF ENVIRONMENTAL QUALITY  
WASTEWATER FACILITY  
INSPECTION REPORT  
PART 1**

Inspection date:	November 6-7, 2013	Date form completed:	???
Inspection by:	Clyde Gantt	Inspection agency:	DEQ/TRO
Time spent:	20 Hours	Announced Inspection:	[ ] Yes [X] No
Reviewed by: Kenneth T. Raum / 11-25-13 <i>KTR</i>		Photographs taken at site? [X] Yes [ ] No	
Present at inspection:	Raye Moore – Env. Eng., (757) 635-9159, raye.moore@ipaper.com		
FACILITY TYPE:		FACILITY CLASS:	
( ) Municipal		(X) Major	
(X) Industrial		( ) Minor	
( ) Federal		( ) Small	
( ) VPA/NDC		( ) High Priority ( ) Low Priority	
TYPE OF INSPECTION:			
Routine	X	Reinspection	Compliance/assistance/complaint
Date of previous inspection:	January 25, 2011	Agency:	DEQ/TRO
Outfall 103 Last Quarter Average: Effluent	BOD <sub>5</sub> (mg/l)	??	TSS (mg/l)
	Flow (MGD)	??	NH <sub>3</sub> (mg/l)
Other:			
COPIES TO: (X) DEQ/TRO; (X) OWNER; ( ) OPERATOR; ( ) Other:			

1-3

**PLANT OPERATION AND MAINTENANCE**

1.	Class/number of licensed operators:	I	1	II	0	III	0	IV	0	Trainee	0
2.	Hours per day plant manned?	??									
3.	Describe adequacy of staffing	GOOD				AVERAGE		X		POOR	
4.	Does the plant have an established program for training personnel								YES	X	NO
5.	Describe the adequacy of training	GOOD				AVERAGE		X		POOR	
6.	Are preventative maintenance tasks scheduled								YES	X	NO
7.	Describe the adequacy of maintenance	GOOD				AVERAGE		X		POOR	
	Does the plant experience any organic/hydraulic overloading?								YES		NO
8.	If yes, identify cause/impact on plant										
9.	Any bypassing since last inspection?								YES		NO
10.	Is the standby electrical generator operational?					YES		NO		NA	X
11.	When was the cross connection last tested on the potable supply?								N/A		
12.	Is the WWTP alarm system operational?					YES	X	NO		NA	
13.	Is sludge disposed in accordance with an approved SMP					YES		NO		NA	X
OVERALL APPEARANCE OF FACILITY		GOOD				AVERAGE		X		POOR	

COMMENTS:	
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1-4

**PLANT RECORDS**

<i>WHICH OF THE FOLLOWING RECORDS DOES THE PLANT MAINTAIN?</i>									
1.	Operational logs for each process unit				YES	X	NO	NA	
	Instrument maintenance and calibration				YES	X	NO	NA	
	Mechanical equipment maintenance				YES	X	NO	NA	
<i>WHAT DOES THE OPERATIONAL LOG CONTAIN</i>									
2.	Visual Observations			Flow Measurement		X	Laboratory Results		X
	Process Adjustments		X	Control Calculations			Other?		
<i>COMMENTS:</i>									
<i>WHAT DO THE MECHANICAL EQUIPMENT RECORDS CONTAIN?</i>									
3.									NA
	MFG. Instructions		X	As Built Plans/specs			Spare Parts Inventory		X
	Lube Schedules		X	Other?			Equipment/parts Suppliers		
<i>COMMENTS:</i>									
<i>WHICH OF THE FOLLOWING RECORDS ARE AT THE PLANT &amp; AVAILABLE TO PERSONNEL?</i>									
5.	Equipment Maintenance Records				X	Industrial Contributor Records			
	Operational Log		X	Sampling/testing Records		X	Instrumentation Records		X
	Records not normally available to personnel at their location:								
7.	Were the records reviewed during the inspection						YES	X	NO
8.	Are records adequate and the O&M manual current?						YES	X	NO
9.	Are the records maintained for the required 3-year time period						YES	X	NO
<i>COMMENTS:</i>									

1-5

**SAMPLING**

1.	Are sampling locations capable of providing representative samples?	YES	<input checked="" type="checkbox"/>	NO	
2.	Do sample types correspond to VPDES permit requirements?	YES	<input checked="" type="checkbox"/>	NO	
3.	Do sampling frequencies correspond to VPDES permit requirements?	YES	<input checked="" type="checkbox"/>	NO	
4.	Does plant maintain required records of sampling?	YES	<input checked="" type="checkbox"/>	NO	
5.	Are composite samples collected in proportion to flow?	YES		NO	<input checked="" type="checkbox"/>
6.	Are composite samples refrigerated during collection?	YES		NO	<input checked="" type="checkbox"/>
7.	Does the plant run operational control tests?	YES	<input checked="" type="checkbox"/>	NO	<input checked="" type="checkbox"/>

COMMENTS:

**TESTING**

1.	Who performs the testing?	Plant	<input checked="" type="checkbox"/>	Central Lab		Commercial Lab	<input checked="" type="checkbox"/>
	Name: River D.O. monitoring by Universal Labs, Routine Analysis by J.R. Reed Labs, Dioxin by Columbia Analytical Services.						

*IF THE PLANT PERFORMS ANY TESTING, PLEASE COMPLETE QUESTIONS 2-4*

2.	Which total residual chlorine method is used?	N/A			
3.	Does plant appear to have sufficient equipment to perform required tests?	YES	<input checked="" type="checkbox"/>	NO	
4.	Does testing equipment appear to be clean and/or operable?	YES	<input checked="" type="checkbox"/>	NO	

COMMENTS:

**FOR INDUSTRIAL FACILITIES WITH TECHNOLOGY BASED LIMITS ONLY**

1.	Is the production process as described in permit application? If no, describe changes in comments section.	YES	<input checked="" type="checkbox"/>	NO		NA	
2.	Are products/production rates as described in the permit application? If no list differences in comments section.	YES	<input checked="" type="checkbox"/>	NO		NA	
3.	Has the Agency been notified of the changes and their impact on plant effluent? Date agency notified:	YES		NO		NA	<input checked="" type="checkbox"/>

COMMENTS:

PROBLEMS IDENTIFIED AT LAST INSPECTION:		CORRECTED	NOT CORRECTED
	None		

## SUMMARY

## INSPECTION COMMENTS:

1	I arrived on site and met with Mr. Moore after checking in at the Guard House. I reviewed the SWPPP and associated documents, the BMP Plan and the 2012 Blackwater River D.O. monitoring. The BMP plan appeared adequate. The D.O. monitoring met permit requirements for the discharge.
2	The SWPPP, required by the permit to be implemented by Nov. 10, 2013 was in the final stages of completion. It had not yet been signed. I made some recommendations regarding potential pollutants.
3	The quarterly visual and site inspections were available and up to date.
4	<p>After the document review, Mr. Moore and I inspected the stormwater outfalls and drainage areas. My comments are as follows:</p> <p>002 – This drains the railroad tracks on the north side of the mill. Chemicals are unloaded from railcars in the area. There is a constant groundwater flow from the outfall. No problems were noted.</p> <p>006/007 – These outfalls receive runoff from along the railroad tracks between Washhole Creek and the treatment ponds. Both discharge into Washhole Creek. There was a flow of groundwater from outfall 007. No problems were noted.</p> <p>008 – Landfill sediment basin #1. Low volume discharge. No problems noted.</p> <p>009 – Landfill sediment basin #3. Basin full of aquatic plants. No problems noted.</p> <p>011 – Landfill sediment basin #2. No problems noted.</p> <p>012/013 – Truck parking lot east of mill. There is a small sediment basin for outfall 013. No problems noted.</p> <p>014 – Truck parking lot off of Union Camp Drive (Rt. 656). The lot is graded towards the north, then the northeast corner. There is a rip-rap berm and small sediment basin. The outfall is to the ditch along the road. I.P. staff has determined that all of the truck lots are substantially similar and only outfall 014 is monitored.</p> <p>Stormwater in the mill area is all captured and pumped to the treatment ponds.</p>
5	On November 7, I returned to the facility. Mr. Moore and I inspected the wastewater treatment facilities. Only one clarifier is in use due to lower flows. Solids are dewatered with filter presses as needed and used as cover in the I.P. landfill. The clarifier discharge flows through a long canal to the aerated pond. Wastewater in the aerated pond is pumped to the off-site "C" and "D" ponds prior to discharge.
6	The "C" and "D" ponds were not inspected. When there is a discharge in January, the ponds should be inspected and the discharge sampled.

## COMPLIANCE RECOMMENDATIONS FOR ACTION:

1	The facility must be evaluated each year for unauthorized discharges. The evaluation must be conducted during dry weather. Documentation should include the date, evaluator and any authorized or unauthorized non-stormwater discharges.
2	It is recommended that the quarterly site inspections focus more on the stormwater BMPs in use and their effectiveness.

STORMWATER MANAGEMENT				
Quarterly Visual Monitoring. Results available? PI, A.1.a	YES	X	NO	
If Benchmark Monitoring is required, is it performed correctly and documented? PI.A.1.b.(1), PI.A.2.b	YES	N/A	NO	
Is Storm event data documented for each monitoring event? PI.A.2.c	YES	X	NO	
DMR submitted as required? PI.A.1.b.(3)	YES	N/A	NO	
Results and records available from all monitoring available? PII.B.1 & 2	YES	X	NO	
If Benchmark Monitoring exceeds the benchmark values was the SWP3 reviewed and modified as necessary? P1.A.5	YES	N/A	NO	
All corrective actions as are result from Inspections, CSCE, local state, federal officials documented and signed as required by Part II.K. PI.A.5.b	YES	N/A	NO	
Have changes to the site added/deleted Outfalls? SWP3 and Map updated? PI.B.9	YES	N/A	NO	
Stormwater Pollution Prevention Plan available, updated and signed? PIII.A, (Deadline for Plan), PIII.F.1 (Signature and location) PIII.G (Updated)	YES	X	NO	
Outfalls Identified in SWP3? Site Map with Drainage and Flows available? PIII.B.2.c.1-12	YES	X	NO	
Oil or other Hazardous Spills? PIII.B.4	YES	X	NO	
Housekeeping and Preventive Maintenance? PIII.B.6.b.(1) & (3)	YES	X	NO	
Routine Inspections performed? (1/3M) PIII.B.6.b.(5)	YES	X	NO	
Employee Training (Scheduled?) PIII.B.6.b.(6)	YES	X	NO	
Comprehensive Site Compliance Evaluation and Report. Certification of Compliance or issues of non-compliance? Signed? PIII.E.3	YES	X	NO	
Annual evaluation for unauthorized discharges? PIII.E.1.h	YES		NO	X
Section 313 chemicals addressed?		X		

UNIT PROCESS:

SCREENING

				YES	NO	NA
1.	Number of manual units	1				
2.	Number of mechanical units	1				
3.	Number manual units in operation	0				
4.	Number of mechanical units in operation	1				
5.	Bypass channel provided		X			
	Bypass channel in use			X		
6.	Area adequately ventilated		X			
7.	Alarm system for equipment failure and/or overloads		X			
8.	Proper flow distribution between units				X	
9.	How often are units checked and cleaned	1 / Shift				
10.	Cycle of operation	Automatic				
11.	Volume of screenings removed	2.5 yrd <sup>3</sup> / Month				
GENERAL CONDITION:		GOOD		FAIR	X	POOR

COMMENTS:

1-9

UNIT PROCESS:

PUMP STATION

YES NO NA

## PUMP CHARACTERISTICS

1.	Name of station	Main Mill / #2 Pump Station		
2.	Number of pumps?	5 at main / 2 at #2		
3.	Type:	3 variable rate & 2 fixed rate / 2 fixed rate		
4.	Rated capacity:	Not checked		

## FOLLOWING EQUIPMENT OPERABLE

5.	All pumps	X		
6.	Ventilation			X
7.	Control equipment	X		
8.	Sump pump			X
9.	Seal water system	X		

## ALARM SYSTEM

10.	Type:	Local	X	Telemetric	X	
11.	Conditions monitored:	High water level	X			
		High liquid level in dry well				X
		Main electric power	X			
		Auxiliary electric power			X	
		Failure of pumps to start			X	
		Test function			X	
		Other:				
22.	Backup for alarm system operational?					X
23.	Alarm signal reported to (identify):	Treatment Plant/Guard House				
29.	How often is the station checked?	1/Shift				

GENERAL CONDITION:	GOOD		FAIR	X	POOR	
COMMENTS:	The pumps at both stations are outside, no ventilation is needed. The facility has two sources of electrical power. It is produced by the mill and there is a feed from Dominion Power. #2 Pump station is for the ASB Pond discharge.					

## UNIT PROCESS:

## SEDIMENTATION

	PRIMARY	X	SECONDARY		TERTIARY		YES	NO	NA	
1.	Number of units				2					
2.	Number units in operation				1					
3.	Proper flow distribution between units								X	
4.	Sludge collection system working properly?						X			
5.	Signs of short circuiting and/or overloads							X		
6.	Effluent weirs level						X			
7.	Effluent weirs clean						X			
8.	Scum collection system working properly								X	
9.	Influent/effluent baffle system working properly						X			
10.	Chemical Used		None			Chemical Addition				
11.	Effluent characteristics			Reddish Brown						
GENERAL CONDITION:		GOOD			FAIR	X	POOR			

COMMENTS:

## UNIT PROCESS:

## PRESSURE FILTRATION (SLUDGE)

	YES	NO	NA				
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.			X				
11.		X					
GENERAL CONDITION:		GOOD		FAIR	X	POOR	
COMMENTS:							

UNIT PROCESS:

AERATED STABILIZATION BASIN (ASB POND)

												YES	NO	NA				
1.	Type	Aerated	X	Un aerated		Polishing												
2.	Number of cells		3															
3.	Number cells in operation		3															
4.	Operation of system																	
	Series	X	Parallel		Other:													
5.	Color							Light Brown										
	Gray		Brown		Green	X	Other:											
EVIDENCE OF THE FOLLOWING PROBLEMS:																		
Vegetation in lagoon or dikes?													X					
Rodents burrowing on dikes?													X					
Erosion?													X					
Sludge bars?													X					
Excessive foam?													X					
6.	Floating material?													X				
7.	If aerated, are lagoon contents mixed adequately?												X					
8.	If aerated, is aeration system operating properly?												X					
9.	Odors:	Septic		Earthy		None	X	Other:										
10.	Fencing intact?												X					
11.	Grass maintained properly?												X					
12.	Level control valves working properly?														X			
13.	Effluent discharge elevation?				Top		Middle		Bottom	X								
14.	Freeboard		10 Feet															
15.	Appearance of effluent?				GOOD		FAIR		POOR									
x	Are monitoring wells present?												X					
	Are wells adequately protected from runoff?														X			
	Are caps on and secured?														X			

GENERAL CONDITION:

GOOD

FAIR

X

POOR

COMMENTS:

There are two "curtains" that divide the pond into three cells. There was no discharge during the inspection. The monitoring wells were not inspected.





Photo #1. ASB Pond, looking north.

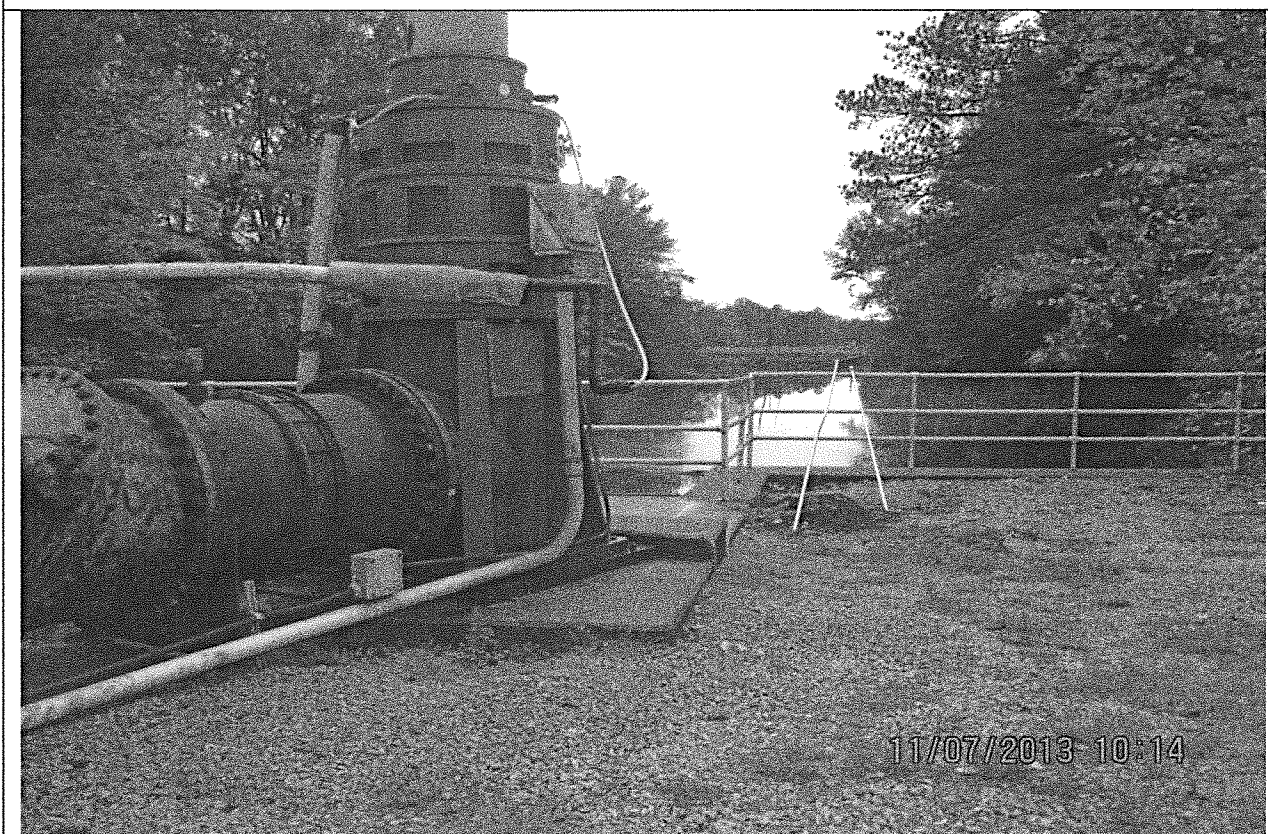


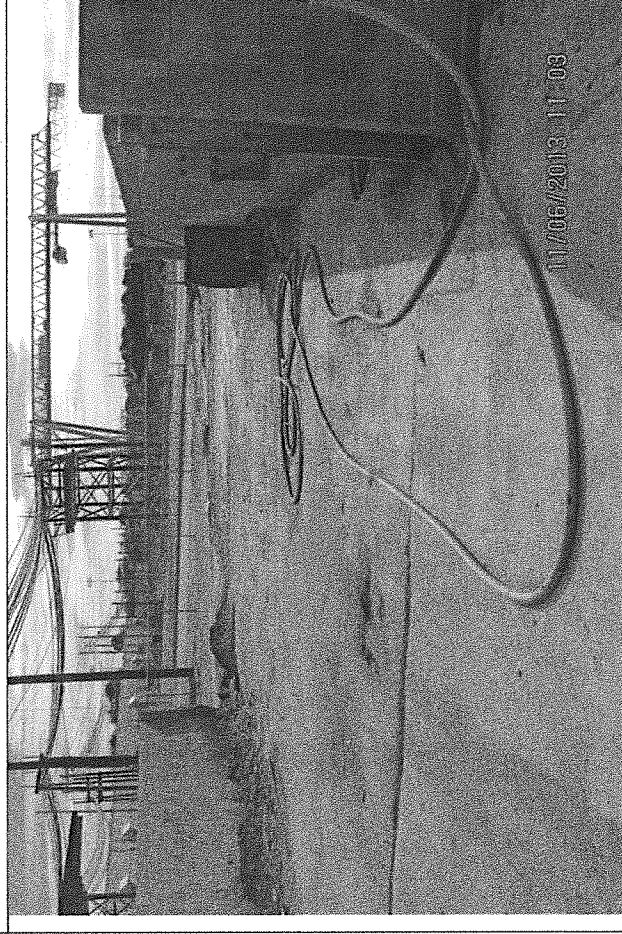
Photo #2. ASB Pond discharge canal and one of the discharge pumps.



Photo #1. Wood processing area on west side of plant.



Photo #2. Outfall 002; drainage from railroad tracks.



Photo#3. Vehicle wash rack with discharge to treatment ponds.



Photo #4. Outfall 006; drainage from tracks near treatment plant.





Photo #1. Outfall 007. Railroad track drainage to Washhole Creek.

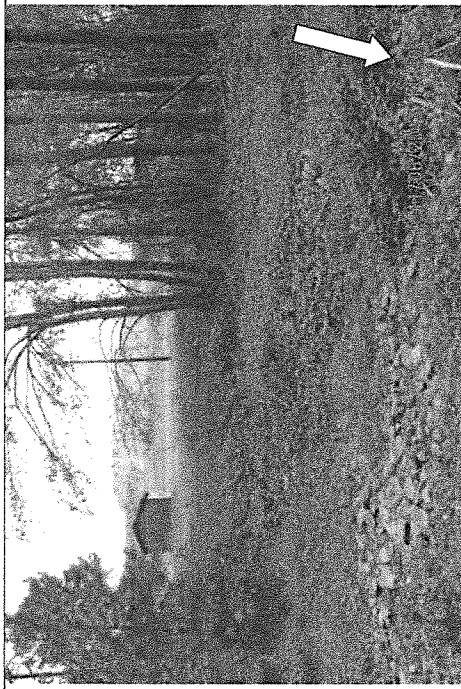


Photo #2. Outfall 008. Drainage from west side of landfill & basin #1.



Photo #3. Looking across sediment basin #3 to the landfill.



Photo #4. Sediment basin #2, to outfall 011 and south side of landfill.

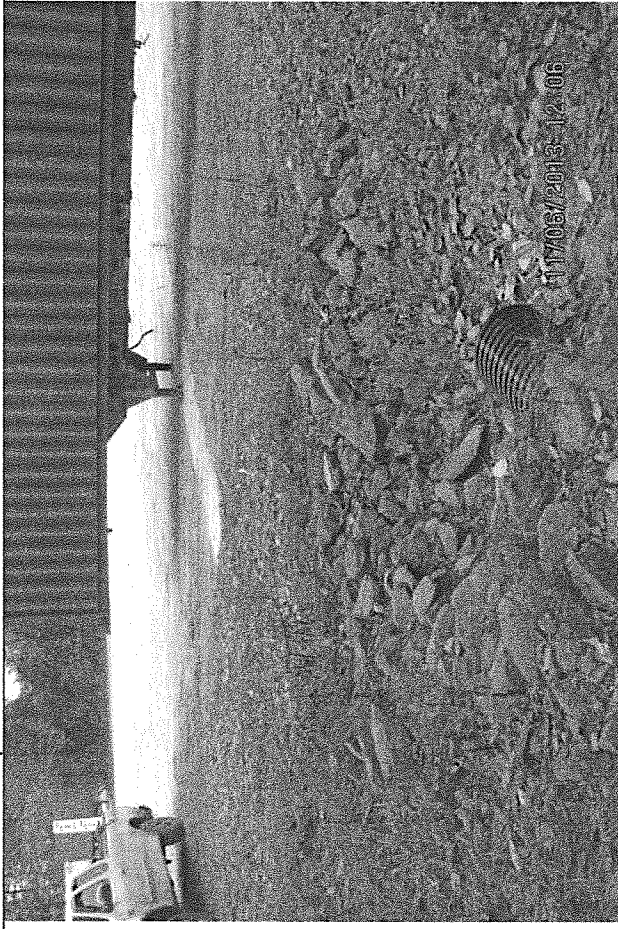


Photo #1. Entrance to outfall 012; drainage from mill truck parking area.



Photo #2. Outfall 013; drainage from mill truck parking area.



Photo#3. Outfall 014; truck parking area near Rt. 260 & Union Camp Dr.

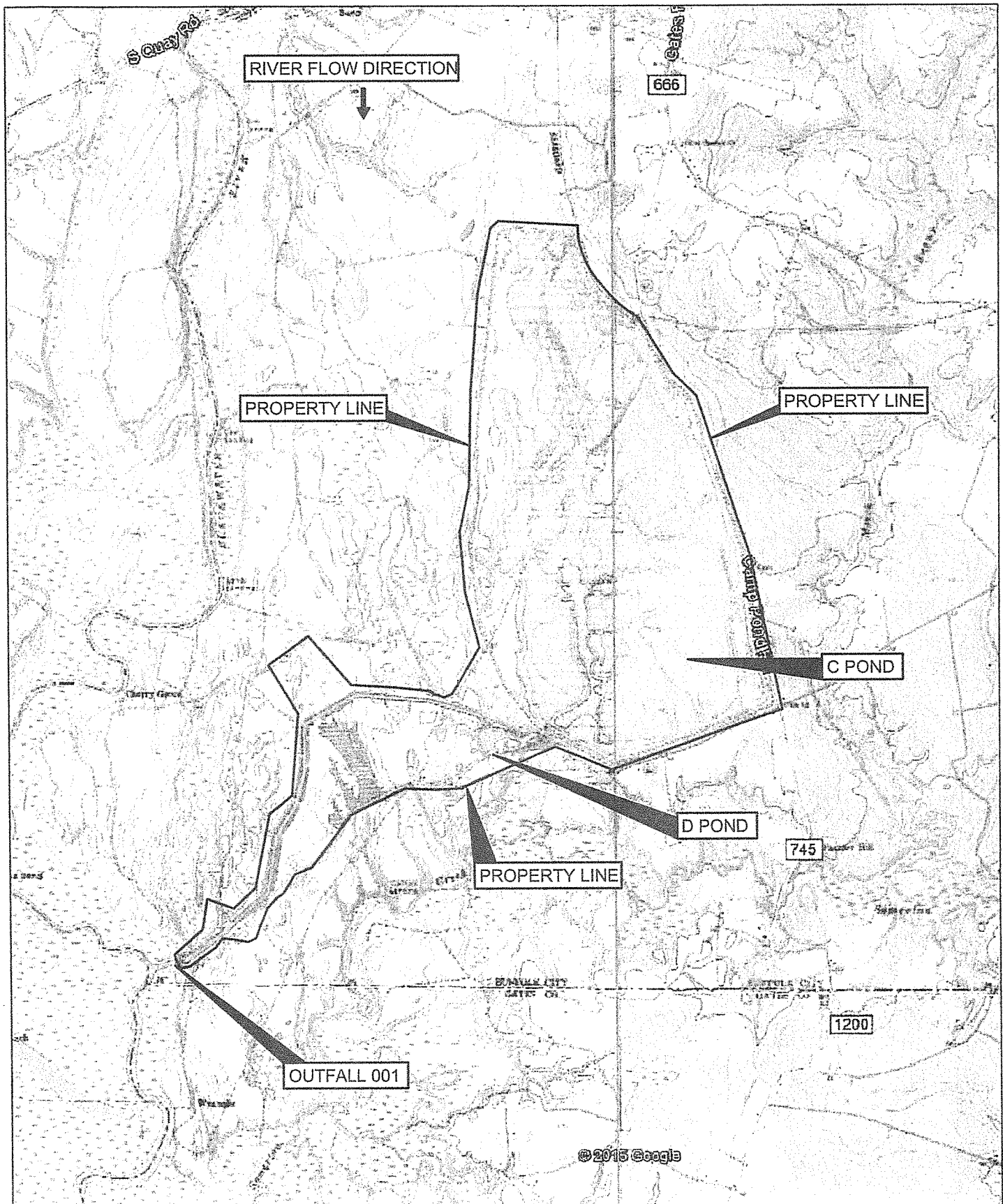


Photo #4. WWTP clarifier.

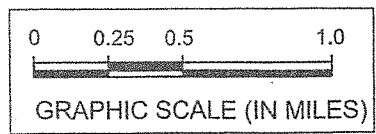
ATTACHMENT 2

DISCHARGE LOCATION/TOPOGRAPHIC MAP

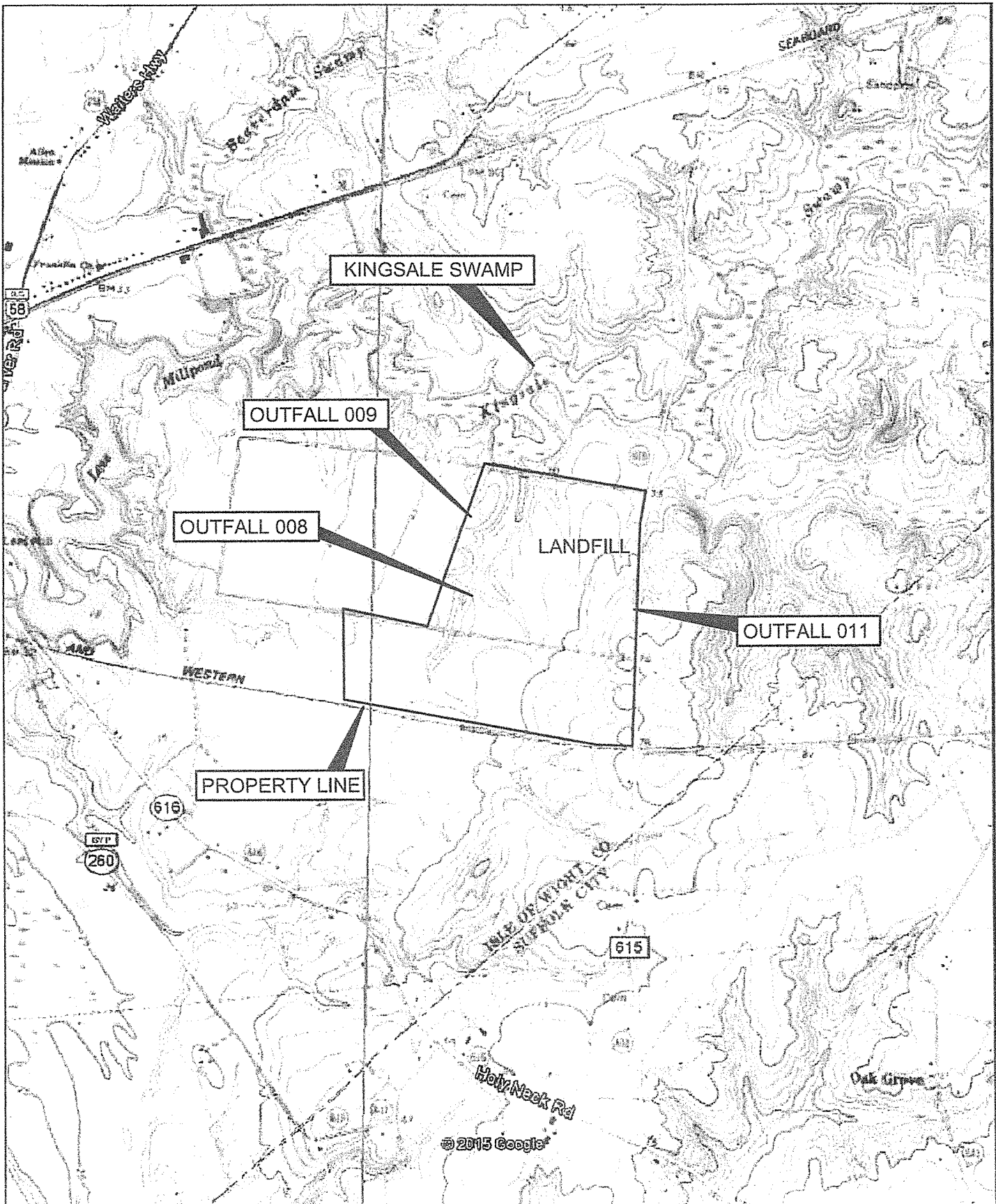




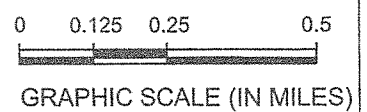
International Paper  
NPDES Form 1, Section XI  
Map D - Effluent Pond



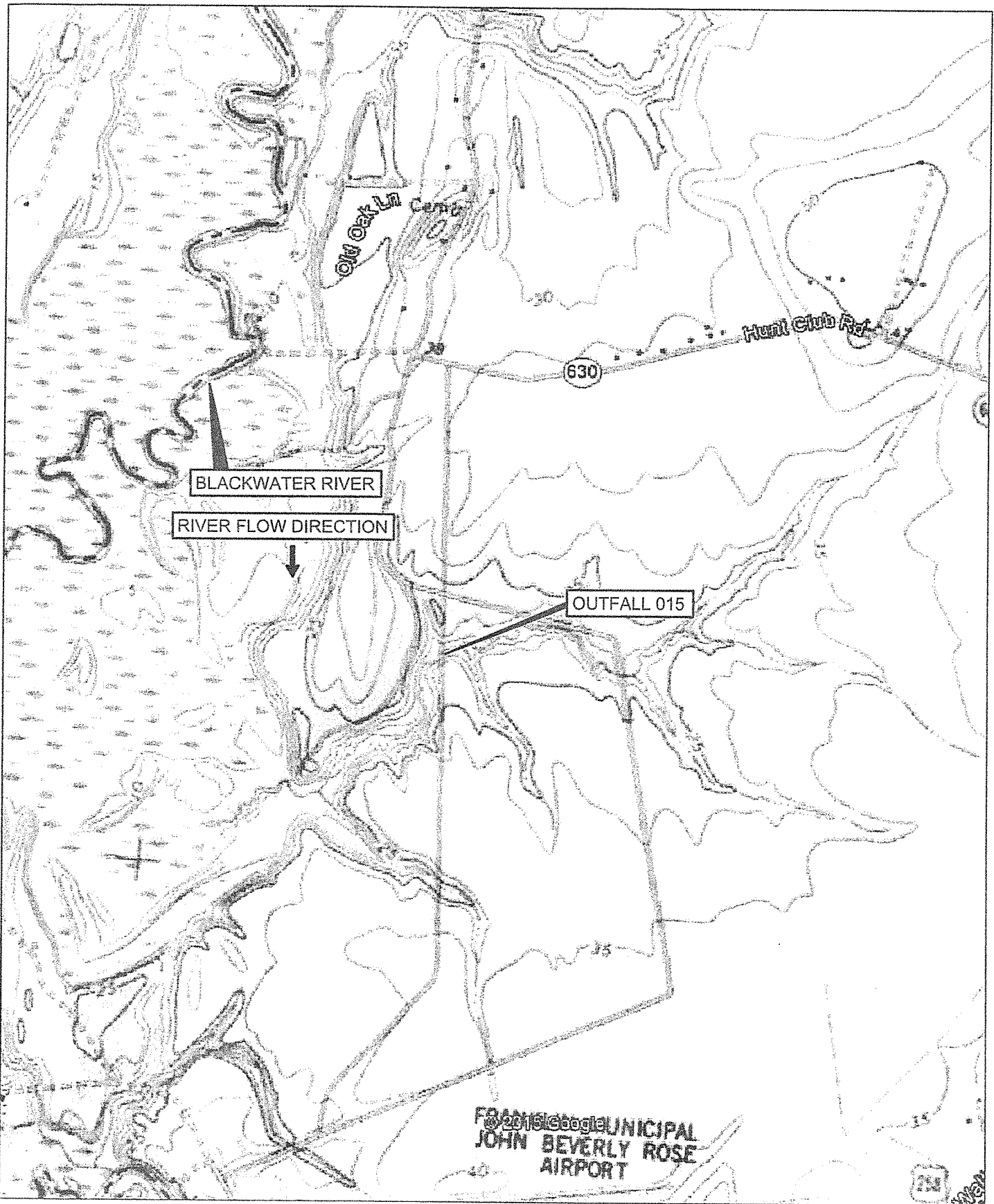




International Paper  
NPDES Form 1, Section XI  
Map C - Landfill

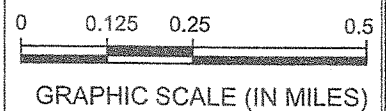






**AECOM**

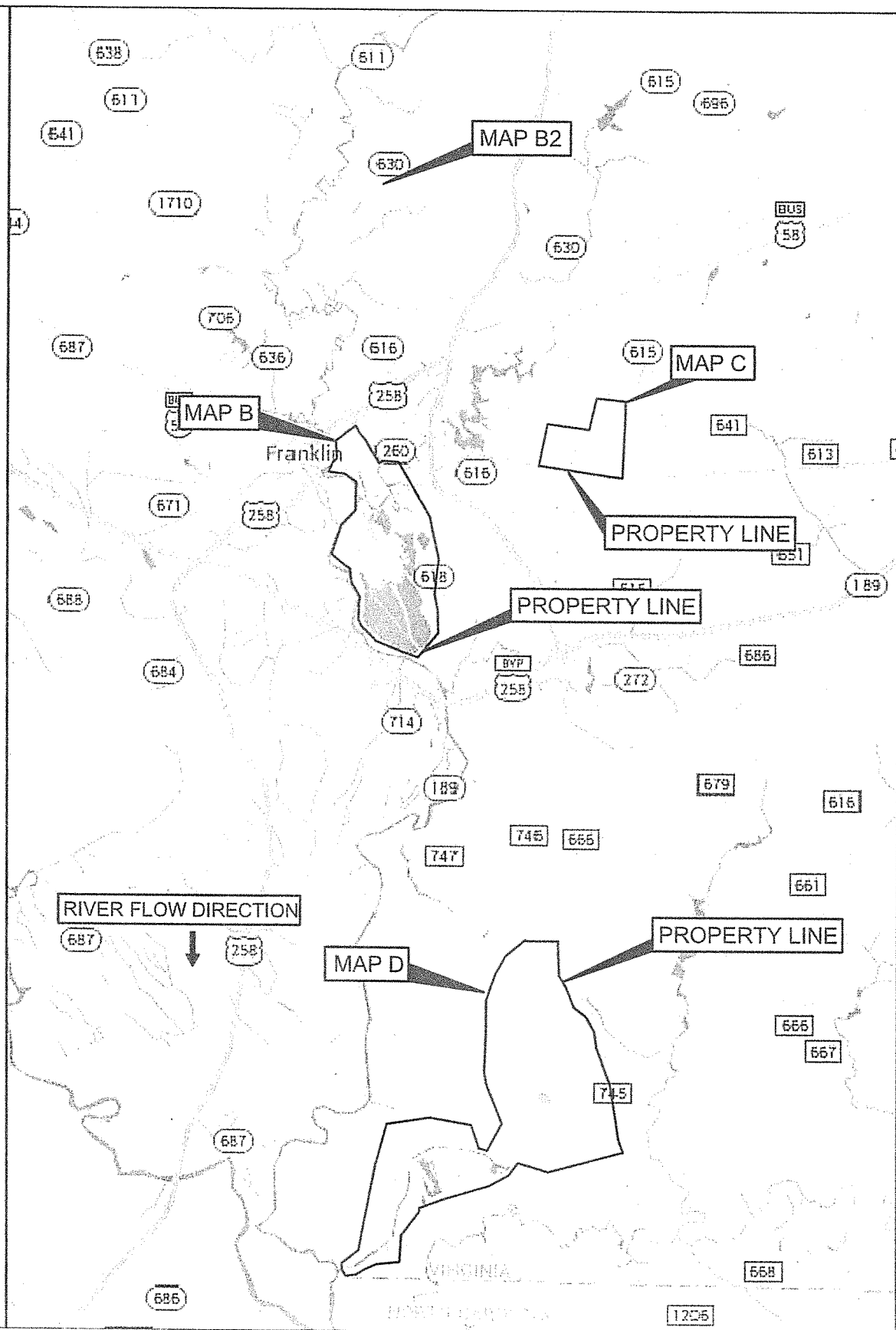
International Paper  
NPDES Form 1, Section XI  
Map B2 - North Well Field



<u>Outfall</u>	<u>Latitude</u>			<u>Longitude</u>			<u>Receiving Water</u>
002	36	40'	45"	76	55'	00"	Blackwater River
006	36	40'	15"	76	54'	45"	Washole Creek
007	36	40'	15"	76	54'	45"	Washole Creek
008	36	40'	15"	76	52'	30"	Kingsale Swamp
009	36	40'	15"	76	52'	30"	Kingsale Swamp
011	36	41'	00"	76	51'	45"	Kingsale Swamp
012	36	40'	45"	76	54'	15"	Washole Creek
013	36	40'	45"	76	54'	30"	Washole Creek
014	36	40'	30"	76	54'	00"	Washole Creek

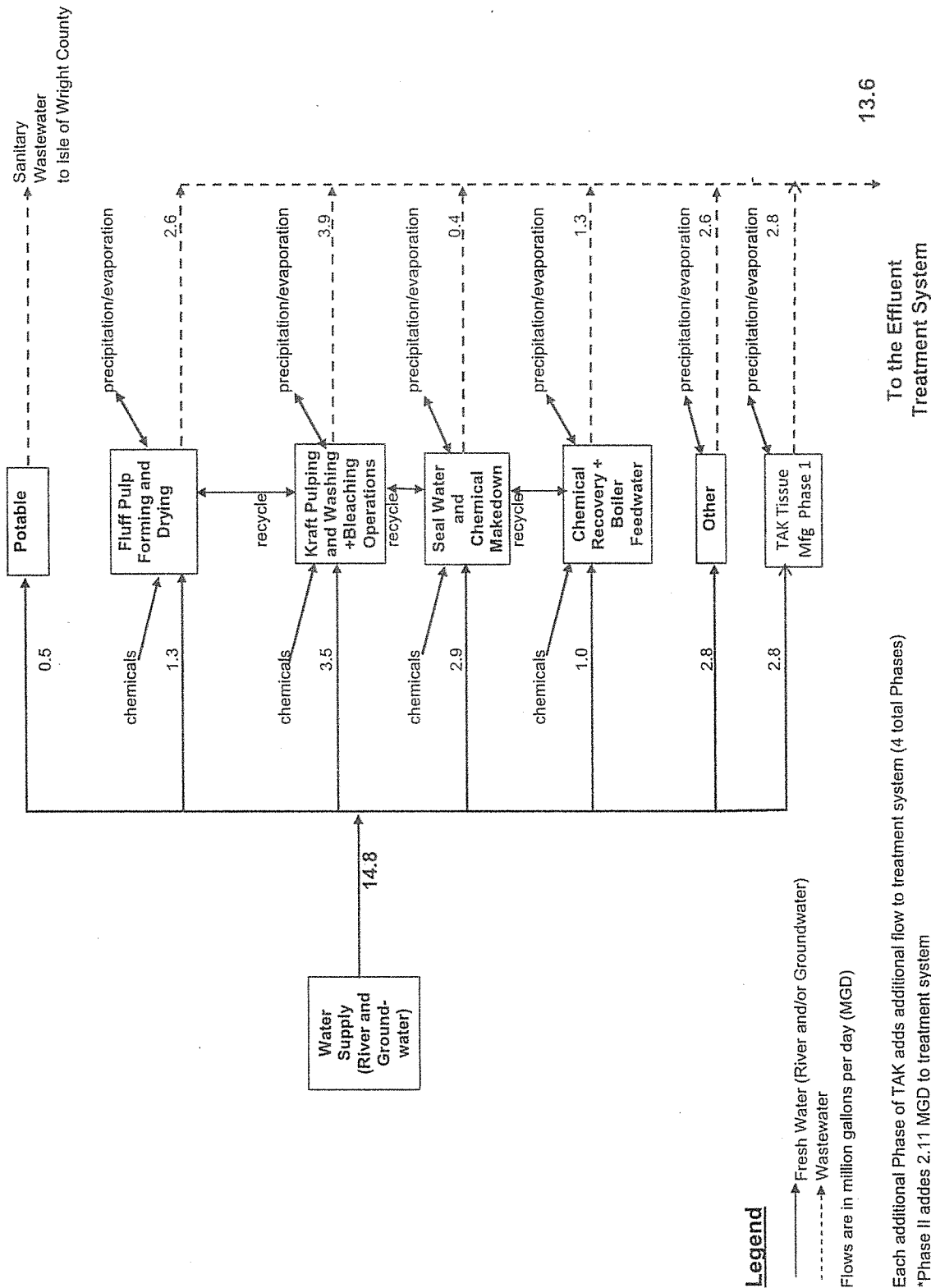
ATTACHMENT 3

SCHEMATIC/PLANS & SPECS/SITE MAP/  
WATER BALANCE





# Water Flow Line Drawing Form 2C Section II.A

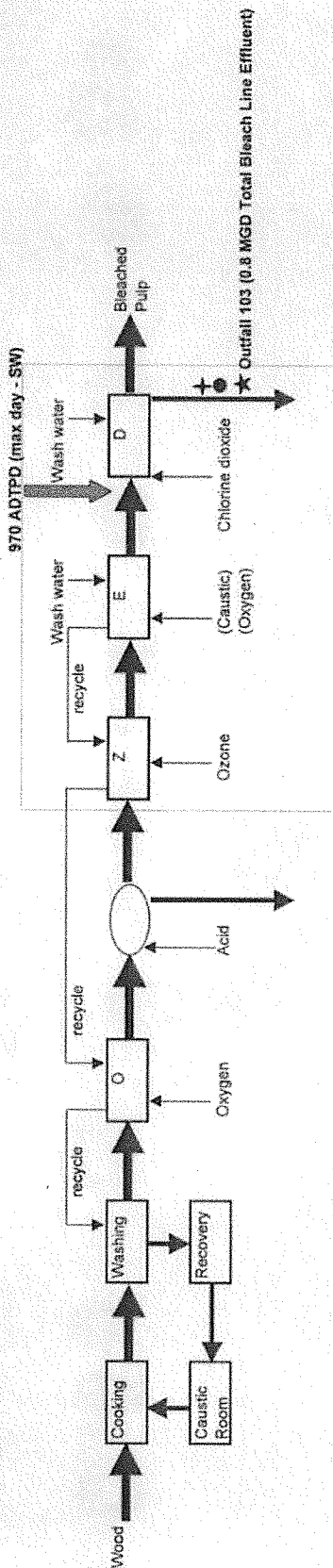


# Form 2C Section II.B

## F Bleach Line

Current Configuration  
Softwood Furnish

Enrolled in Cluster Rule Voluntary Advanced Technology Incentives Program (VATIP)  
Currently VATIP Tier I Compliant



### Legend

O

Z

E

D

Oxygen Stage

Ozone Stage

Caustic Extraction Stage

Chlorine Dioxide Stage

Bleach Plant as defined at 40 CFR Part 430.01c

Reference Point for Production Defined at 40 CFR 430.01 n

Compliance Point for the Bleach Line Outfall

Monitoring Location for 2,3,7,8-TCDD, 2,3,7,8-TCDF and 12 chlorophenolics

Monitoring Location for Chloroform

ADTPD

MGD

HW

SW

Air Dried tons Per Day

Million Gallons per Day

Hardwood Furnish

Softwood furnish

International Paper  
Camp Mill  
VPDES Permit Application

6/16/99

Revised xls  
F Current

VAD003112265

Please print or type in the unshaded areas only.

FORM 2C NPDES		EPA		U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS Consolidated Permits Program			
I. OUTFALL LOCATION							
For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.							
A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	36.00	33.00	13.40	76.00	54.00	46.50	BLACKWATER RIVER
103	36.00	40.00	49.00	76.00	54.00	46.00	INTERNAL OUTFALL (F BLEACH)
II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES							
A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.							
B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.							
1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT				
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION		b. LIST CODES FROM TABLE 2C-1		
001	SEE ATTACHED						
103	SEE ATTACHED						

OFFICIAL USE ONLY (effluent guidelines sub-categories)



Form Approved. OMB No. 2040-0086  
Approval expires 5-31-92

Please print or type in the unshaded areas only.

[illegible]

4-3

International Paper - Franklin Mill  
VPDES Permit No VA0004162

**FORM 2 C - Section III.C INSERT**  
**Internal Outfall Information**

*" F " Bleach Line*

Outfall Number	Bleach Line	Bleaching Sequence	Fiber Furnish	Unfinished Pulp Entering Bleach Plant		
				Maximum Daily Production (ADTPD)	Long-Term Avg Production (ADTPD)	Long-Term Avg Flow (MGD)
103	F	ODED	SW	1,320	920	2.73
103	F	ODED (w/semi)	SW	TBD	TBD	

ADTPD      Air Dried Tons per Day  
 SW        Softwood furnish  
 Semi      Semi-bleached pulp comes off the O2 stage without entering the bleach plant  
 TBD      Future fluff pulp product to be determined at a later date  
 Flows are projected estimates.  
 Production rate as defined at 40 CFR 430.01n

## ATTACHMENT 5

### TABLE II - EFFLUENT MONITORING/LIMITATIONS

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 001

Outfall Description: Process wastewater, Phase I

SIC CODE: 2611

(X) Final Limits Effective Dates - From: Effective To: The first full discharge season after TAK Investments, Inc. Phase II begins

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/D	MEAS
Flow, Seasonal (MG)[b]	2		NA	NA	14000	1/M	MEAS
pH (S.U.)[d]	2		NA	6.0	9.0	1/W	GRAB
TSS (mg/l)[c][d]	3		292	NA	584	1/W	GRAB
TSS (lb/sea x 10 <sup>6</sup> )	2		NA	NA	2.88	1/M	GRAB
BOD5 (mg/l)[c][d]	3		143	NA	286	1/W	GRAB
BOD5 (lb/sea x 10 <sup>6</sup> )	2		NA	NA	4.4	1/M	GRAB
COD (mg/l)[c]	3		NL	NA	NL	1/M	GRAB
Color, PCU	3		NL	NA	NL	1/W	GRAB
Nitrogen, Total as N (mg/l)	3		NL	NA	NL	1/M	GRAB
Phosphorus, Total as P (mg/l)	2		2	NA	NL	1/W	GRAB
Phosphorus, Total (lb/sea x 10 <sup>6</sup> )	3		NA	NA	0.2	1/M	GRAB
Ammonia, as N (mg/l)[c]	2		2.15	NA	3.19	1/M	GRAB
Ammonia, as N (lb/sea x 10 <sup>6</sup> ) [c]	2		0.22	NA	0.32	1/M	GRAB
2,3,7,8-TCDD (pg/l)[a][c]	4		0.02	NA	0.02	1/SEA	GRAB
2,3,7,8-TCDD (lb/sea x 10 <sup>-5</sup> ) [a][c]	4		NA	NA	0.19	1/SEA	GRAB
2,3,7,8-TCDF (pg/l)[a][c]	3		NA	NA	NL	1/SEA	GRAB
2,3,7,8-TCDF (lb/sea x 10 <sup>-5</sup> ) [a][c]	3		NA	NA	NL	1/SEA	GRAB
AOX (mg/l)[c][d]	1		21	NA	47	1/M	GRAB
AOX (lb/season)[c]	1		NL	NA	175,000	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY;

1/Season = November 1 – March 31.

[a] See Special Condition I.B.11 for additional information concerning sampling methodology.

[b] Flow rate shall be measured by daily recording of the settings on properly calibrated discharge gates.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.9 for effluent monitoring frequency requirements

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment
4. North Carolina Water Quality Standards (NCAC, Ch.2, Subch. 2B, §.0208)

5-2

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 001

Outfall Description: Process wastewater , Phase IISIC CODE: 2611(X) Final Limits Effective Dates - From: The beginning of the first full discharge season after TAK Investments, Inc. Phase II begins To: The first full discharge season after TAK Investments, Inc. Phase III begins

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/D	MEAS
Flow, Seasonal (MG)[b]	2		NA	NA	14000	1/M	MEAS
pH (S.U.)[d]	2		NA	6.0	9.0	1/W	GRAB
TSS (mg/l)[c][d]	3		307	NA	614	1/W	GRAB
TSS (lb/sea x 10 <sup>6</sup> )	2		NA	NA	2.88	1/M	GRAB
BOD5 (mg/l)[c][d]	3		155	NA	310	1/W	GRAB
BOD5 (lb/sea x 10 <sup>6</sup> )	2		NA	NA	4.4	1/M	GRAB
COD (mg/l)[c]	3		NL	NA	NL	1/M	GRAB
Color, PCU	3		NL	NA	NL	1/W	GRAB
Nitrogen, Total as N (mg/l)	3		NL	NA	NL	1/M	GRAB
Phosphorus, Total as P (mg/l)	2		2	NA	NL	1/W	GRAB
Phosphorus, Total (lb/sea x 10 <sup>6</sup> )	3		NA	NA	0.2	1/M	GRAB
Ammonia, as N (mg/l)[c]	2		2.15	NA	3.19	1/M	GRAB
Ammonia, as N (lb/sea x 10 <sup>6</sup> ) [c]	2		0.22	NA	0.32	1/M	GRAB
2,3,7,8-TCDD (pg/l)[a][c]	4		0.02	NA	0.02	1/SEA	GRAB
2,3,7,8-TCDD (lb/sea x 10 <sup>-5</sup> ) [a][c]	4		NA	NA	0.19	1/SEA	GRAB
2,3,7,8-TCDF (pg/l)[a][c]	3		NA	NA	NL	1/SEA	GRAB
2,3,7,8-TCDF (lb/sea x 10 <sup>-5</sup> ) [a][c]	3		NA	NA	NL	1/SEA	GRAB
AOX (mg/l)[c][d]	1		21	NA	47	1/M	GRAB
AOX (lb/season)[c]	1		NL	NA	175,000	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY;

1/Season = November 1 – March 31.

[a] See Special Condition I.B.11 for additional information concerning sampling methodology.

[b] Flow rate shall be measured by daily recording of the settings on properly calibrated discharge gates.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.9 for effluent monitoring frequency requirements

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment
4. North Carolina Water Quality Standards (NCAC, Ch.2, Subch. 2B, §.0208)

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 001

Outfall Description: Process wastewater, Phase III

SIC CODE: 2611

(X) Final Limits Effective Dates - From: The beginning of the first full discharge season after TAK Investments, Inc. Phase III begins To: The first full discharge season after TAK Investments, Inc. Phase IV begins

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/D	MEAS
Flow, Seasonal (MG)[b]	2		NA	NA	14000	1/M	MEAS
pH (S.U.)[d]	2		NA	6.0	9.0	1/W	GRAB
TSS (mg/l)[c][d]	3		305	NA	610	1/W	GRAB
TSS (lb/sea x 10 <sup>6</sup> )	2		NA	NA	2.88	1/M	GRAB
BOD5 (mg/l)[c][d]	3		149	NA	298	1/W	GRAB
BOD5 (lb/sea x 10 <sup>6</sup> )	2		NA	NA	4.4	1/M	GRAB
COD (mg/l)[c]	3		NL	NA	NL	1/M	GRAB
Color, PCU	3		NL	NA	NL	1/W	GRAB
Nitrogen, Total as N (mg/l)	3		NL	NA	NL	1/M	GRAB
Phosphorus, Total as P (mg/l)	2		2	NA	NL	1/W	GRAB
Phosphorus, Total (lb/sea x 10 <sup>6</sup> )	3		NA	NA	0.2	1/M	GRAB
Ammonia, as N (mg/l)[c]	2		2.15	NA	3.19	1/M	GRAB
Ammonia, as N (lb/sea x 10 <sup>6</sup> ) [c]	2		0.22	NA	0.32	1/M	GRAB
2,3,7,8-TCDD (pg/l)[a][c]	4		0.02	NA	0.02	1/SEA	GRAB
2,3,7,8-TCDD (lb/sea x 10 <sup>-5</sup> ) [a][c]	4		NA	NA	0.19	1/SEA	GRAB
2,3,7,8-TCDF (pg/l)[a][c]	3		NA	NA	NL	1/SEA	GRAB
2,3,7,8-TCDF (lb/sea x 10 <sup>-5</sup> ) [a][c]	3		NA	NA	NL	1/SEA	GRAB
AOX (mg/l)[c][d]	1		21	NA	47	1/M	GRAB
AOX (lb/season)[c]	1		NL	NA	175,000	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY;

1/Season = November 1 – March 31.

[a] See Special Condition I.B.11 for additional information concerning sampling methodology.

[b] Flow rate shall be measured by daily recording of the settings on properly calibrated discharge gates.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.9 for effluent monitoring frequency requirements

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment
4. North Carolina Water Quality Standards (NCAC, Ch.2, Subch. 2B, §.0208)

5-4

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 001

Outfall Description: Process wastewater , Phase IV

SIC CODE: 2611

(X) Final Limits Effective Dates - From: The beginning of the first full discharge season after TAK Investments, Inc. Phase IV  
begins To: expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/D	MEAS
Flow, Seasonal (MG)[b]	2		NA	NA	14000	1/M	MEAS
pH (S.U.)[d]	2		NA	6.0	9.0	1/W	GRAB
TSS (mg/l)[c][d]	3		310	NA	620	1/W	GRAB
TSS (lb/sea x 10 <sup>6</sup> )	2		NA	NA	2.88	1/M	GRAB
BOD5 (mg/l)[c][d]	3		152	NA	304	1/W	GRAB
BOD5 (lb/sea x 10 <sup>6</sup> )	2		NA	NA	4.4	1/M	GRAB
COD (mg/l)[c]	3		NL	NA	NL	1/M	GRAB
Color, PCU	3		NL	NA	NL	1/W	GRAB
Nitrogen, Total as N (mg/l)	3		NL	NA	NL	1/M	GRAB
Phosphorus, Total as P (mg/l)	2		2	NA	NL	1/W	GRAB
Phosphorus, Total (lb/sea x 10 <sup>6</sup> )	3		NA	NA	0.2	1/M	GRAB
Ammonia, as N (mg/l)[c]	2		2.15	NA	3.19	1/M	GRAB
Ammonia, as N (lb/sea x 10 <sup>6</sup> ) [c]	2		0.22	NA	0.32	1/M	GRAB
2,3,7,8-TCDD (pg/l)[a][c]	4		0.02	NA	0.02	1/SEA	GRAB
2,3,7,8-TCDD (lb/sea x 10 <sup>-5</sup> ) [a][c]	4		NA	NA	0.19	1/SEA	GRAB
2,3,7,8-TCDF (pg/l)[a][c]	3		NA	NA	NL	1/SEA	GRAB
2,3,7,8-TCDF (lb/sea x 10 <sup>-5</sup> ) [a][c]	3		NA	NA	NL	1/SEA	GRAB
AOX (mg/l)[c][d]	1		21	NA	47	1/M	GRAB
AOX (lb/season)[c]	1		NL	NA	175,000	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY;

1/Season = November 1 – March 31.

[a] See Special Condition I.B.11 for additional information concerning sampling methodology.

[b] Flow rate shall be measured by daily recording of the settings on properly calibrated discharge gates.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.9 for effluent monitoring frequency requirements

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment
4. North Carolina Water Quality Standards (NCAC, Ch.2, Subch. 2B, §.0208)



TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 103Outfall Description: F Bleach Plant effluentSIC CODE: 2611

(X) Final Limits Effective Dates - Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/M	MEAS
2,3,7,8-TCDD (pg/l)[c]	1		NA	NA	ND	1/Year	GRAB
2,3,7,8-TCDF (pg/l)[c]	1		NA	NA	31.9	1/Year	GRAB
Chloroform (ug/l)[c]	3		NL	NA	NL	1/Year	GRAB
Chloroform (g/day)[c]	1		3463	NA	5788	1/Year	GRAB
Trichlorosyringol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
3,4,5-Trichlorocatechol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
3,4,6-Trichlorocatechol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
3,4,5-Trichloroguaiacol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
3,4,6-Trichloroguaiacol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
4,5,6-Trichloroguaiacol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
2,4,5-Trichlorophenol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
2,4,6-Trichlorophenol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
Tetrachlorocatechol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
Tetrachloroguaiacol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
2,3,4,6-Tetrachlorophenol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
Pentachlorophenol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
Kappa Annual Average-Softwood [d]	1		20	NA	NA	1/M	GRAB
Kappa Monthly Average[d]	3		NL	NA	NA	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/Year = January 1 – December 31.

[a] See Special Condition I.B.15 for additional information concerning sampling methodology.

[b] Flow rate shall be determined by measurement devices when available, and in the absence of such devices, by flow balances around and within the bleach plant sewer. All information used to determine flow rates shall be retained in accordance with Part II.B.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.16 for additional information concerning Kappa Number measurement and reporting.

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONSOUTFALL # 010 and 015

Outfall Description: untreated fresh groundwater resulting from periodic flushing of the water supply line

SIC CODE: 2611

(X) Final Limits    Effective Dates - From: Issuance    To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
NO MONITORING REQUIRED	3						

THESE OUTFALLS SHALL CONTAIN UNTREATED FRESH GROUNDWATER WHERE NO MONITORING IS REQUIRED.  
THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER OR STORMWATER FROM THESE OUTFALLS.

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - STORMWATER EFFLUENT LIMITATIONS

OUTFALL # 002, 006, 007, 008, 009, 011, 012, 013, 014

Outfall Description: 002 - storm water only from North rail yard area to Blackwater River; 006, 007 - storm water only from south end of facility to Washole Creek; 008, 009, 011 - storm water only from natural areas outside of landfill dike to Kingsale Swamp; 012, 013, 014 - storm water only from trailer parking area(s) (012 and 013) and from gravel lots for construction material and trailer storage (014) to Washole Creek

SIC CODE: 2611

THESE OUTFALLS SHALL CONTAIN STORMWATER RUNOFF ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO BIOLOGICAL MONITORING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THESE OUTFALLS. THE PERMITTEE SHALL IMPLEMENT PROPER STRUCTURAL AND/OR NON-STRUCTURAL BMP's TO CONTROL POLLUTANTS FROM THESE OUTFALLS. SEE PART I.E.

- |   |   |  |
|---|---|--|
| (1) Timber Products                                 | (12) Automobile Salvage Yards   | (20) Food & Kindred Products   |
| (2) Paper & Allied Products                         | (13) Scrap/Waste Recycling  | (21) Textile Mills, Apparel & Other Fabric Products Mfg.                                 |
| (3) Chemical & Allied Products                      | (14) Steam Electric Power   | (22) Wood & Metal Furniture and Fixture Mfg.   |
| (4) Asphalt Paving/Roofing Matls. & Lubricant       | Generating, Inc. Coal Handling Areas  | (23) Printing & Publishing   |
| (5) Glass, Clay, Cement, Concrete & Gypsum Products | (15) Motor Freight, Passenger, Rail, U.S. Postal Transportation & Petroleum Bulk Oil Stations and Terminals | (24) Rubber, Miscellaneous Plastic Products & Miscellaneous Mfg.                         |
| (6) Primary Metals                                  | (16) Water Transportation With Maintenance and/or Equipment Cleaning  | (25) Leather Tanning & Finishing   |
| (7) Metal Mining (Ore Mining & Dressing             | (17) Ship/Boat Building or Repairing  | (26) Fabricated Metal Products   |
| (8) Coal Mines & Coal Mining Related                | (18) Vehicle Maintenance, Equipment Cleaning or Deicing Areas At Air Transportation Facilities              | (27) Transportation Equipment, Industrial or Commercial Machinery Mfg.                   |
| (9) Oil & Gas Extraction & Petroleum Refineries     | (19) Treatment Works  | (28) Electronic & Electrical Equipment and Components, Photographic & Optical Goods Mfg. |
| (10) Hazardous Waste Treatment, Storage, Disposal   |   | (29) Nonclassified Facilities  |
| (11) Landfills, Land Application Sites & Open Dumps |   |  |

ATTACHMENT 6

EFFLUENT LIMITATIONS/MONITORING  
RATIONALE/SUITABLE DATA/  
ANTIDEGRADATION/ANTIBACKSLIDING

VPDES PERMIT PROGRAM  
EFFLUENT LIMITATIONS AND MONITORING RATIONALE  
for  
International Paper-Franklin Mill

International Paper (IP) owns and operates the manufacturing at this facility; administrative offices, production facilities and warehousing operations are located on the mill site. IP operates one machine which produces fluff pulp. A tenant company, TAK Investments, Inc. also operates at the mill site and manufactures tissue. TAK Investments, Inc. operations include one paper machine, the fiber recycling plant, administrative offices and warehousing operations. The facility is subject to the federal Pulp, Paper and Paperboard Point Source Category effluent limitations guidelines (ELG) regulations at 40 CFR Part 430, General Provisions, and 40 CFR 430 Subpart B, Bleached Papergrade Kraft and Soda Subcategory, in addition to applicable Virginia water laws and regulations. The federal regulations affect outfall 001 and one internal outfall, 103. A copy of these applicable federal regulations is provided in this Attachment.

In addition to effluent monitoring for surface water discharge, the company has performed groundwater monitoring in accordance with an approved plan submitted in 2002/2003. Semi-annual monitoring and annual reporting requirements have continued as a part of the permit through each reissuance and modification since the groundwater plan was approved in 2003. The purpose of the plan is to evaluate the effects of the effluent seepage from the Aerated Stabilization Basin (ASB) to surrounding sensitive receptors. The groundwater wells are situated as receptors if the ASB ponds were to leak and naturally flow toward the Blackwater River. To date the groundwater data confirms and the reports conclude, that no significant changes have occurred in the water quality downgradient of the ASB and no exceedances of the comparison values for tested analytes have occurred. This report is submitted no later than March 31<sup>st</sup> each year in conjunction with the annual discharge season (November-March).

Out-Of-Season discharge special condition is continued in this reissuance. During the year, all process water is stored in the C pond until the discharge season begins November 1<sup>st</sup> and continues through March 31<sup>st</sup> at which time effluent is conveyed to D pond and discharged to state waters from that storage pond. An out-of-season discharge (September/October) is considered on a case-by-case basis from D pond ONLY. The monitoring requirements for this case-by-case discharge have been determined based on the fact that D pond is drained to the lowest point possible during the discharge season. After the discharge season, beginning April 1<sup>st</sup> each year, stormwater and ground water are the only sources entering D pond until the next discharge season begins November 1<sup>st</sup>. Therefore the presence of dioxin and furans in the effluent during out-of-season discharge is not a concern; thus the monitoring exclusion in the special condition for these two pollutants.

Outfall 103 (F Bleach Line) (D and E Bleach Lines are currently "inactive")

The applicant has enrolled its F bleach line in the VATIP at the Tier I level and has qualified as Advanced ECF (Elemental Chlorine-Free). Bleach plant effluent from the F Bleach Line is regulated under 40 CFR §430 and must meet Best Available Technology (BAT) effluent limitations imposed by 40 CFR §430, particularly §430.24(b) (VATIP) and §430.02 (monitoring requirements), at the point where the wastewater leaves the bleach plant. The plant has achieved compliance with the requirements, and the limits were initially placed in the permit effective January 19, 2000. The federal BAT minimum monitoring frequency requirements under 40 CFR §430 are no longer applicable, as 40 CFR §430.02(c) for plants enrolled in the VATIP specifies that monitoring at the specified frequencies shall continue for a duration of five years from the date the permit first included applicable limitations from subpart B. The permittee had asked that monitoring for those parameters addressed by §430.02 be discontinued altogether; however, 40 CFR §122.44(i) requires at least annual monitoring to determine compliance with the Federal ELG's for those parameters addressed by the ELG which contain limitations. Therefore, monitoring cannot be discontinued altogether. Monitoring for the applicable parameters was reduced effective at the issuance of the permit, to the maximum extent allowable under §122.44(i). The sample type will be a grab sample. It is a staff BPJ decision that for facilities enrolled in the VATIP program that have demonstrated five years of compliance, a grab sample is sufficient to determine continued compliance with the ELG limits. Based on the list of parameters addressed in 40 CFR §430.02(c), Kappa number is not included in the list of parameters where monitoring is reduced after five years.

*Rationale for Effluent Limitations*

**Flow:** The monitoring frequency is once per month and the Daily Maximum and Monthly Average effluent limitations are NL, based on BPJ. Flow balances are routinely used at the bleach line to control the bleaching process and are considered to be sufficiently accurate for effluent monitoring purposes, if direct measurements are not available. Therefore, flow rate shall be determined by measurement devices when available, and in the absence of such devices, by flow balances around and within the bleach plant sewer. All information used to determine flow rates shall be retained in accordance with Part II.B to allow later on-site inspection of flow measurement records. The measurement of flow is necessary to evaluate the potential impact of the discharge on receiving waters, including but not limited to the calculation of pollutant mass from concentration data, as well as to verify that federal mass-based ELGs have been appropriately implemented through conversion to concentration-based effluent limitations for this source.

**TCDD, TCDF, chloroform, and the 12 chlorinated phenolic pollutants:**

Limitations are being established based on the federal ELGs, as follows. The applicant has enrolled its "F" bleach line in the VATIP at the Tier I Stage 2 level; the limitations are in effect. Therefore, Tier I Stage 2 limitations at 40 CFR §430.24(b)(4) apply on permit reissuance date. Because the F bleach line employs Advanced ECF bleaching technology to achieve Tier I limitations, federal regulations at 40 CFR §430.02(c), footnote (f) allow suspension of monitoring for these pollutants after one year of monitoring as an incentive for enrolling in the VATIP. However, based on the minimum monitoring required under 40 CFR §122.44(i)(2), monitoring for these pollutants will be continued at a once per year frequency. The Minimum Levels specified at 40 CFR §430.01(i) are being implemented as Quantification Levels (QLs), based on BPJ. "ND" shall mean non-detectable at the corresponding Quantification Level. A measured value equal to or greater than the QL shall be considered to exceed the

limitation. Effluent limitations (except for Chloroform) are being maintained at the same numerical values as for the prior monitoring period to ensure that the F bleach line continues to meet the baseline BAT level of performance, and are restated below:

Parameter	Daily Maximum	Monthly Average	Quantification Level (QL)
2,3,7,8-TCDD	ND*		10 pg/l**
2,3,7,8-TCDF	31.9 pg/l		10 pg/l
Trichlorosyringol	ND		2.5 ug/l
3,4,5-Trichlorocatechol	ND		5.0 ug/l
3,4,6-Trichlorocatechol	ND		5.0 ug/l
3,4,5-Trichloroguaiacol	ND		2.5 ug/l
3,4,6-Trichloroguaiacol	ND		2.5 ug/l
4,5,6-Trichloroguaiacol	ND		2.5 ug/l
2,4,5-Trichlorophenol	ND		2.5 ug/l
2,4,6-Trichlorophenol	ND		2.5 ug/l
Tetrachlorocatechol	ND		5.0 ug/l
Tetrachloroguaiacol	ND		5.0 ug/l
2,3,4,6-Tetrachlorophenol	ND		2.5 ug/l
Pentachlorophenol	ND		5.0 ug/l
Chloroform, g/d	3463	5788	
Chloroform, ug/l	NL	NL	

\*ND = Non-detectable at the Quantification Level specified.  
Detection at the Quantification Level shall constitute an exceedance of the effluent limitation.

\*\*pg/l = picograms per liter

For chloroform, the federal baseline BAT ELG's at 40 CFR §430.24(a)(1) are stated as a mass basis per unit of production (grams of chloroform per 1000 kg of air dried (10% moisture) brownstock pulp entering the first stage of the bleach plant (40 CFR §430.01(n)(2)), as follows:

Parameter	Daily Maximum	Monthly Average
Chloroform	6.92 g/kg*	4.14 g/kg *grams per 1000kilograms

For purposes of enforceability, these production-based federal ELG's have been converted to mass-based effluent limitations. These limitations apply to the total "F" Bleach Line effluent. The monitoring frequency is monthly, as specified in 40 CFR §430.02(c), however those plants certifying Advanced ECF, monitoring may be suspended after one year of monitoring; due to EPA requirements stipulating minimum monitoring frequency of 1/year, monitoring for chloroform was set at 1/year in the previous reissuance; this reissuance will continue the 1/year monitoring frequency. For the "F" Bleach Line, the maximum daily production rate is 920 US Tons (application data).

The daily maximum effluent limitation is 5788 g/day,  
The monthly average effluent limitation is 3463 g/day.  
Conversion to g/day was calculated as follows:

#### Daily Maximum

$$\frac{6.92 \text{ g}}{\text{kg}} \times \frac{\text{kg}}{2200 \text{ lb}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{920 \text{ Ton}}{\text{day}} = \frac{5787.6 \text{ g}}{\text{day}} \text{ (rounded to } \underline{5788 \text{ g/day}})$$

#### Monthly Average

$$\frac{4.14 \text{ g}}{\text{Kg}} \times \frac{\text{kg}}{2200 \text{ lb}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{920 \text{ Ton}}{\text{day}} = \frac{3462.5 \text{ g}}{\text{day}} \text{ (rounded to } \underline{3463 \text{ g/day}})$$



IN ADDITION, based on best professional judgment, a daily maximum and monthly average CONCENTRATION-BASED, monitoring only "NL" is being continued from the previous permit.

**AOX:** The federal ELG for AOX discharged from the F bleach line applies to the facility's combined final effluent at Outfall 001 and is based on the AOX ELGs for the F bleach line. See Outfall 001 below for determination of AOX effluent limitations. (Limitations are reduced based on the inactive status of D and E Bleach Lines)

**Kappa Number:** Limitations are established based on the federal ELGs, as follows. The Kappa Annual Average-Softwood limitation of 20 S.U. is continued based on the federal ELGs. The Kappa Annual Average-Hardwood was removed from the permit during the 2012 modification because the permittee has stated that they will not be doing hardwood at the repurposed mill, only softwood. Based on BPJ, the Kappa Annual Average effluent limitations are being expressed as a 12-month rolling average, and the monitoring frequency is monthly, to allow monthly tracking of the facility's annual average Kappa Number. Additionally, based on BPJ, the Kappa Monthly Average effluent limitation of NL is continued to allow tracking of the individual monthly Kappa Number values that comprise the 12-month rolling average.

## Final Effluent Outfall

Outfall 001

Process wastewater is stored in C pond and will be discharged via "D" pond during discharge seasons. Process wastewater will be generated from one internal bleach line (F Bleach Line) at the plant as part of the 2012 repurposing of the plant. Limits will be the similar to the previous permit, however revisions (to numeric limitations) will be made based on current processes and flows and current operations at the plant. Specific changes in internal processes and bleach-line specific production flows will be addressed at the internal outfall for the operational bleach line. (D and E Bleach lines are currently inactive).

The Blackwater River at the location of Outfall 001 is identified as a Tier 1 water and listed on the 303(d) listed streams. Because this permit limits routine seasonal discharges from outfall 001 to the months of November through March inclusive (see Special Condition I.B.13), all computations involving stream flow data will be limited to this discharge season.

The receiving stream flow statistics are as follows:

<u>Blackwater River</u>		
1Q10	0.22 mgd	(November-March)
7Q10	1.36 mgd	(November-March)
30Q5	29.3 mgd	(November-March)
30Q10	2 mgd	
Mean Annual Flow	702.2 mgd	(November-March at the VA-NC state line)

**Flow:** The measurement of flow is necessary to evaluate the potential impact of the discharge on receiving waters, including but not limited to the calculation of pollutant mass from concentration data, the consideration of mixing zone aspects and Instream Waste Concentration, evaluation of potential acute and chronic toxicity effects, and evaluation of wastewater handling and/or treatment system capacities. The effluent limitation for flow rate in MGD is established as NL Daily Minimum, NL Monthly Average and NL Daily Maximum, and the monitoring frequency is once per day, based on BPJ. The flow rate shall be accurately measured by daily recording of the settings on properly calibrated discharge gates and shall not be estimated. The effluent limitation for cumulative flow is established at 14 billion gallons (14,000 MG) per discharge season, based on the state Water Quality Management Plan, and the monitoring frequency is monthly, based on BPJ.

**COD:** The Water Quality Standards at 9 VAC 25-260-20 prohibit the presence of substances in amounts which interfere with designated uses and authorize the control of toxic substances or substances which may interfere with designated uses. EPA has indicated that it intends to promulgate COD limitations for 40 CFR §430 Subpart B mills (which would include this facility) in a later rulemaking. The 2012 edition of the 40 CFR has reserved the limits for COD at this time. COD is a broad measure of organic content, which includes toxic organic materials that are not readily biodegraded and, hence, are not generally measured by the BOD5 test. Therefore, the Daily Maximum and Monthly Average effluent limitations for COD are NL, and the monitoring frequency is once per month, based on BPJ.

**BOD5:** The Water Quality Standards at 9 VAC 25-260-20 prohibit the presence of substances in amounts which interfere with designated uses and authorize the control of substances which may interfere with designated uses. The federal ELGs at 40 CFR §430 Subpart B (Bleached Papergrade Kraft) establish mass-based best practicable control technology (BPT) limitations for BOD5 based on facility product types and quantities. For non-continuous dischargers, the ELGs are stated as an annual average mass-based limitation. The monitoring frequency is not specified. The applicable state Water Quality Management (WQM) Plan limits BOD5 to a maximum of 4.4 million pounds per year. Based on BPJ, the annual average BOD5 limitation is being expressed as a monthly average because the facility accumulates its daily discharge in a holding pond and does not discharge for an entire year. BOD Limitations have been calculated in four phases, corresponding to the four phases of production lines of the ST Tissue Manufacturing process. With the TAK Investments, Inc. manufacturing process, concentration limits for BOD will increase during the proposed four manufacturing phases. The new BOD concentration limits will be similar to the limitations at the mill prior to the mill shutdown in 2010. The **Phase I Monthly Average BOD5 limitation is being set at 143 mg/l**, based on the federal ELGs (see table below). The **Daily Maximum BOD5 limitation is being set at 286 mg/l**, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The **Phase II Monthly Average BOD5 limitation is being set at 155 mg/l**, based on the federal ELGs (see table below). The **Daily Maximum BOD5 limitation is being set at 310 mg/l**, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The **Phase III Monthly Average BOD5 limitation is being set at 149 mg/l**, based on the federal ELGs (see table below). The **Daily Maximum BOD5 limitation is being set at 298 mg/l**, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The **Phase IV Monthly Average BOD5 limitation is being set at 152 mg/l**, based on the federal ELGs (see table below). The **Daily Maximum BOD5 limitation is being set at 304 mg/l**, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The monitoring frequency is once per week, based on BPJ, because the facility's 11-billion gallon storage pond (C Pond) significantly dampens potential daily effluent variability. Additionally the **Discharge Season Cumulative Maximum BOD5 limitation is being set at 4.4 million pounds**, based on the Virginia WQM Plan, with a monitoring frequency of once per month.

6-7

Monthly Average BOD5 - Phase I of TAK Investments, Inc. process operation

BOD5 Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average BOD5 Limitation (lb/d)	Production Line Effluent Volume (mgd)	BOD5 Limitation (mg/l)
Market Pulp	4.52	877	7,928.08	10.8	87.96
Paperboard	3.99 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	3.09 (\$430.22) Note - 100% of the deinking process under §430.92 is included in the pulp and fine paper production	208	1,285.44	2.8	55.00
Total BPT Limit - Phase I					142.96

Monthly Average BOD5 = 143 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(4.52) = 7928.08 \text{ \#/d annual average}$

$7928.08 \text{ \#/d}$

$8.345 \text{ \#/gal (10.8mgd)} = 87.96 \text{ mg/l}$

Fine Tissue

$208(2000) = 416000/1000 = 416(3.09) = 1285.44 \text{ \#/d annual average}$

$1285.44 \text{ \#/d}$

$8.345 \text{ \#/gal (2.8mgd)} = 55.00 \text{ mg/l}$

Monthly Maximum BOD5 = 286 mg/l (2 x's the average)

6-8

## Monthly Average BOD5 - Phase II of TAK Investments, Inc. process operation

BOD5 Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average BOD5 Limitation (lb/d)	Production Line Effluent Volume (mgd)	BOD5 Limitation (mg/l)
Market Pulp	4.52	877	7,928.08	10.8	87.96
Paperboard	3.99 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	3.09 (\$430.22) Note - 100% of the deinking process under §430.92 is included in the pulp and fine paper production	416	2,570.88	4.91	67.14
Total BPT Limit - Phase II					155.10

Monthly Average BOD5 = 155 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(4.52) = 7928.08 \text{ \#/d annual average}$

$7928.08 \text{ \#/d}$

$8.345 \text{ \#/gal (10.8mgd)} = 87.96 \text{ mg/l}$

Fine Tissue

$416(2000) = 832000/1000 = 832(3.09) = 2570.88 \text{ \#/d annual average}$

$2750.88 \text{ \#/d}$

$8.345 \text{ \#/gal (4.91mgd)} = 67.14 \text{ mg/l}$

Monthly Maximum BOD5 = 310 mg/l (2 x's the average)

6-9

Monthly Average BOD5 - Phase III of TAK Investments, Inc. process operation

BOD5 Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average BOD5 Limitation (lb/d)	Production Line Effluent Volume (mgd)	BOD5 Limitation (mg/l)
Market Pulp	4.52	877	7,928.08	10.8	87.96
Paperboard	3.99 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	3.09 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	624	3,856.32	7.54	61.29
Total BPT Limit - Phase III					149.25

Monthly Average BOD5 = 149 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(4.52) = 7928.08 \text{ \#/d annual average}$

$7928.08 \text{ \#/d}$

$8.345 \text{ \#/gal (10.8mgd)} = 87.96 \text{ mg/l}$

Fine Tissue

$624(2000) = 1248000/1000 = 1248(3.09) = 3856.32 \text{ \#/d annual average}$

$3856.32 \text{ \#/d}$

$8.345 \text{ \#/gal (7.54mgd)} = 61.29 \text{ mg/l}$

Monthly Maximum BOD5 = 298 mg/l (2 x's the average)

## Monthly Average BOD5 - Phase IV of TAK Investments, Inc. process operation

BOD5 Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average BOD5 Limitation (lb/d)	Production Line Effluent Volume (mgd)	BOD5 Limitation (mg/l)
Market Pulp	4.52	877	7,928.08	10.8	87.96
Paperboard	3.99 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	3.09 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	832	5,141.76	9.65	63.85
Total BPT Limit - Phase IV					151.81

Monthly Average BOD5 = 152 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(4.52) = 7928.08 \text{ \#/d annual average}$

$7928.08 \text{ \#/d}$

$8.345 \text{ \#/gal (10.8mgd)} = 87.96 \text{ mg/l}$

Fine Tissue

$832(2000) = 1664000/1000 = 1664(3.09) = 5141.76 \text{ \#/d annual average}$

$5141.76 \text{ \#/d}$

$8.345 \text{ \#/gal (9.65mgd)} = 63.85 \text{ mg/l}$

Monthly Maximum BOD5 = 304 mg/l (2 x's the average)



**TSS:** The Water Quality Standards at 9 VAC 25-260-20 prohibit the presence of substances in amounts which interfere with designated uses and authorize the control of substances which may interfere with designated uses. The federal ELGs at 40 CFR §430 Subpart B (Bleached Papergrade Kraft) establish mass-based best practicable control technology (BPT) limitations for TSS based on facility product types and quantities. For non-continuous dischargers, the ELGs are stated as an annual average mass-based limitation. The monitoring frequency is not specified. The applicable state Water Quality Management (WQM) Plan limits TSS to a maximum of 2.88 million pounds per year. Based on BPJ, the annual average TSS limitation is being expressed as a monthly average because the facility accumulates its daily discharge in a holding pond and does not discharge for an entire year. TSS Limitations have been calculated in four phases, corresponding to the four phases of production lines of the ST Tissue manufacturing process. With the TAK Investments, Inc. manufacturing process, concentration limits for TSS will increase during the proposed four manufacturing phases. The new TSS concentration limits will be similar to the limitations at the mill prior to the mill shutdown in 2010. The Phase I Monthly Average TSS limitation is being set at 292 mg/l, based on the federal ELGs (see table below). The Daily Maximum TSS limitation is being set at 584 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase II Monthly Average TSS limitation is being set at 307 mg/l, based on the federal ELGs (see table below). The Daily Maximum TSS limitation is being set at 614 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase III Monthly Average TSS limitation is being set at 305 mg/l, based on the federal ELGs (see table below). The Daily Maximum TSS limitation is being set at 610 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase IV Monthly Average TSS limitation is being set at 310 mg/l, based on the federal ELGs (see table below). The Daily Maximum TSS limitation is being set at 620 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The monitoring frequency is once per week, based on BPJ, because the facility's 11-billion gallon storage pond (C Pond) significantly dampens potential daily effluent variability. Additionally the discharge season cumulative maximum TSS limitation is being set at 2.88 million pounds, based on the Virginia WQM Plan, with a monitoring frequency of once per month.

6-12

Monthly Average TSS - Phase I of TAK Investments, Inc. process operation

TSS Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average TSS Limitation (lb/d)	Production Line Effluent Volume (mgd)	TSS Limitation (mg/l)
Market Pulp	9.01	877	15,038.54	10.8	175.34
Paperboard	7.09 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	6.54 (\$430.22) Note - 100% of the deinking process under §430.92 is included in the pulp and fine paper production	208	2,720.64	2.8	116.42
Total BPT Limit - Phase I					291.76

Monthly Average TSS = 292 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(9.01) = 15803.54 \text{ \#/d annual average}$

$\frac{15803.54 \text{ \#/d}}{8.345 \text{ \#/gal (10.8mgd)}} = 175.34 \text{ mg/l}$

Fine Tissue

$208(2000) = 416000/1000 = 416(6.54) = 2720.64 \text{ \#/d annual average}$

$\frac{2720.64 \text{ \#/d}}{8.345 \text{ \#/gal (2.8mgd)}} = 116.42 \text{ mg/l}$

Monthly Maximum BOD5 = 584 mg/l (2 x's the average)

6-13

Monthly Average TSS - Phase II of TAK Investments, Inc. process operation

TSS Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average TSS Limitation (lb/d)	Production Line Effluent Volume (mgd)	TSS Limitation (mg/l)
Market Pulp	9.01	877	15,038.54	10.8	175.34
Paperboard	7.09 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	6.54 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	416	5,441.28	4.91	132.81
Total BPT Limit - Phase II					307.15

Monthly Average TSS = 307 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(9.01) = 15803.54 \text{ \#/d annual average}$

$\frac{15803.54 \text{ \#/d}}{8.345 \text{ \#/gal}}$

$(10.8\text{mgd}) = 175.34 \text{ mg/l}$

Fine Tissue

$416(2000) = 832000/1000 = 832(6.54) = 5441.28 \text{ \#/d annual average}$

$\frac{5441.28 \text{ \#/d}}{8.345 \text{ \#/gal}}$

$(4.91\text{mgd}) = 132.81 \text{ mg/l}$

Monthly Maximum BOD5 = 614 mg/l (2 x's the average)

6-14

Monthly Average TSS - Phase III of TAK Investments, Inc. process operation

TSS Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average TSS Limitation (lb/d)	Production Line Effluent Volume (mgd)	TSS Limitation (mg/l)
Market Pulp	9.01	877	15,038.54	10.8	175.34
Paperboard	7.09 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	6.54 (\$430.22) Note - 100% of the deinking process under §430.92 is included in the pulp and fine paper production	624	8,161.92	7.54	129.72
Total BPT Limit - Phase III					305.06

Monthly Average TSS = 305 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(9.01) = 15803.54 \text{ \#/d annual average}$

15803.54 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 175.34 \text{ mg/l}$

Fine Tissue

$624(2000) = 1248000/1000 = 1248(6.54) = 8161.92 \text{ \#/d annual average}$

8161.92 \#/d

$8.345 \text{ \#/gal (7.54mgd)} = 129.72 \text{ mg/l}$

Monthly Maximum BOD5 = 610 mg/l (2 x's the average)

6-15

Monthly Average TSS - Phase IV of TAK Investments, Inc. process operation

TSS Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average TSS Limitation (lb/d)	Production Line Effluent Volume (mgd)	TSS Limitation (mg/l)
Market Pulp	9.01	877	15,038.54	10.8	175.34
Paperboard	7.09 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	6.54 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	832	10,882.56	9.65	135.14
Total BPT Limit - Phase IV					310.48

Monthly Average TSS = 310 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(9.01) = 15803.54 \text{ \#/d annual average}$

$15803.54 \text{ \#/d}$

$8.345 \text{ \#/gal (10.8mgd)} = 175.34 \text{ mg/l}$

Fine Tissue

$832(2000) = 1664000/1000 = 1664(6.54) = 10882.56 \text{ \#/d annual average}$

$10882.56 \text{ \#/d}$

$8.345 \text{ \#/gal (9.65mgd)} = 135.14 \text{ mg/l}$

Monthly Maximum BOD5 = 620 mg/l (2 x's the average)

**Color:** The Water Quality Standards at 9 VAC 25-260-20 prohibit the presence of substances in amounts which interfere with designated uses and authorize the control of substances that produce color. Neither the Virginia Water Quality Standards nor the applicable federal ELGs at 40 CFR §430 contain numerical limitations or monitoring frequencies for color. Therefore, based on BPJ, the Monthly Average and Daily Maximum limitations for color are established as NL, and the monitoring frequency is weekly.

**pH:** The effluent pH is limited to 6.0-9.0, based on applicable Water Quality Standards. The monitoring frequency is weekly, based on BPJ. Measurement of effluent pH is necessary to confirm proper treatment, characterize the discharge and adequately evaluate its potential impact on receiving waters. The Water Quality Standards at 9 VAC 25-260-50 limit pH in surface waters to the range of 6.0-9.0. The federal ELGs at 40 CFR §430 limit pH to the range 5.0-9.0 at all times, and the monitoring frequency is not specified.

**Total Nitrogen:** The Daily Maximum and Monthly Average NL monitoring requirements for Total Nitrogen in the previous permit are being continued, the monitoring frequency is being retained at monthly, based on BPJ, for the following reasons: (1) there is no water quality criterion for total nitrogen in waters other than Chesapeake Bay tributaries; (2) monitoring results during the previous permit term indicate only low levels of total nitrogen; and (3) the permit will continue to limit ammonia-nitrogen, for which a water quality criterion does exist.

**Total Phosphorus:** The Blackwater River is identified at 9 VAC 25-260-470 as a Nutrient Enriched Water. There is no freshwater water quality criterion for phosphorus. The Policy for Nutrient Enriched Waters at 9 VAC 25-40-30(A) requires a monthly average total phosphorus effluent limitation of 2 mg/l. Based on BPJ, the Daily Maximum limitation is NL to allow monitoring of peak measured values. The weekly monitoring frequency in the previous permit is being retained, based on BPJ. Additionally, based on BPJ, a seasonal maximum limitation of 200,000 pounds\* is based on

$$(2 \frac{mg}{l})(11,286)(8.34) = 188,250lbs$$

*\*(and - rounded = 200,000lbs)*

previous flows and calculated based on a seasonal discharge flow of 11,286 million gallons during the previous permit term (Actual calculated value of 188,300 lbs rounded to 200,000 lbs in previous permit). In order to maintain nutrient loadings to nutrient enriched receiving streams, the limit will not be recalculated based on recent flows.

**Ammonia-Nitrogen:** All references to ammonia in this section refer to ammonia as N. The Blackwater River at Outfall 001 is identified as a Nutrient Enriched Water. The relevant receiving stream water quality statistics are as follows:

Hardness	48.1 mg/l	(90th %ile)
pH	7.00 SU	(90th %ile)
Temp	25.13 °C	(90th %ile)

The need to change the ammonia limit was re-evaluated; see the attached stats.exe using revised WLA and data. The previous limits are being retained, as follows: Monthly Average 2.15 mg/l and Daily Maximum 3.19 mg/l, with the monitoring frequency re-established to once per month; and Seasonal Monthly

Average 220,000 pounds and Seasonal Maximum 320,000 pounds, with a monitoring frequency of once per month, based on BPJ.

**Dioxin (2,3,7,8-TCDD):** The Virginia water quality standard for dioxin is 5.1 (10<sup>-8</sup>) ug/l (micrograms per liter for the protection of human health, which equals 0.051 pg/l (picogram per liter) (see 9 VAC 25-260-150). The North Carolina human health standard is 0.000005 nanograms per liter, or stated for comparison purposes, 0.005 pg/l. Thus, the North Carolina standard is more restrictive. Because Outfall 001 discharges within one stream mile of the Virginia-North Carolina state line, the North Carolina standard and stream flow value will be used to derive the permit limitations.

#### Determination of Human Health WLA (WLAh)

WLAh is calculated by the steady state complete mix method using the North Carolina dioxin standard of 0.005 pg/l and the mean annual Chowan River flow of Qs (=1537 mgd) when evaluating carcinogenic materials. The Chowan data is used as this is where the effluent stream enters into NC, it protects NC standard and was agreed upon in the 1994 permit negotiations. Because the North Carolina standard is a "never-to-be-exceeded" standard, the maximum effluent flow rate of 500 mgd indicated by the applicant will be used for Qe. No allowance for any

$$WLAh(pg/l) = \frac{0.005(500+1537)}{500} = \underline{0.020 \text{ pg/l}}$$

To ensure that a WLAh of 0.020 pg/l is protective of the Virginia Standard. WLAh is calculated using the Virginia Standard, the mean seasonal flow of 702.2 MGD for the Blackwater River at the point of discharge: Since the wasteload allocation is lower using the North Carolina standard, the Virginia Standard is protected.

$$WLAh(pg/l) = \frac{0.051(500+702.2)}{500} = \underline{0.123 \text{ pg/l}}$$

To first derive the appropriate limit the WLA computer model was forced by using a single datum of 99 for the 1994 permit. The model shows that a Monthly Average and Daily Maximum limit of 0.02 ppq are necessary to protect human health. Therefore, the Monthly Average and Daily Maximum limitations for dioxin are set at 0.02 pg/l (ppq) and the QL is set at 10 ppq. A measured value equal to or greater than the QL shall be considered to exceed the limitation.

The Seasonal Maximum mass limitation is 1.9x10<sup>-6</sup> lb. This value is recalculated for this permit. The Seasonal Maximum mass limitation was derived using the Daily Maximum limitation of 0.02 ppq and the maximum reported seasonal flow of 11,286 million gallons, as follows:

$$(0.02 \text{ pg/l})(11,286 \text{ MG})(8.34\#/g) = (1882.5 \text{ pg/l})(11,286 \text{ MG})(8.34\#/g) = \underline{0.19 \times 10^{-5} \text{ lb}}$$

The monitoring frequency for dioxin at Outfall 001 is being continued from the previous permit at once per discharge season, with the requirement that the monitoring be performed during the final 14 days of the discharge season, when the facility's C storage pond is nearly empty, retention time is lowest and potential dilution from stormwater is lowest.

**Furan (2,3,7,8-TCDF):** Neither the Virginia nor the North Carolina water quality standards establish a criterion for furan (2,3,7,8-TCDF). The federal ELGs at 40 CFR §430.24(a)(1) establish a daily maximum technology-based effluent limit of 31.9 pg/l (ppq) for bleach line effluents, which has been applied at Outfall 103 (see Internal Outfall section above). The previous permit contained a



monthly NL monitoring-only requirement for furan at Outfall 001. DMR data from the previous permit term show Daily Maximum furan concentrations ranging from zero to <QL, which are all less than the method quantification level (QL) of 10 ppq (see Attachment 6: DMR data tables). Due to antibacksliding regulation, the effluent limitation for 2,3,7,8-TCDF is being retained as NL.

Based on BPJ, the monitoring frequency for furan at Outfall 001 is being continued at once per discharge season, with the requirement that the monitoring be performed during the final 14 days of the discharge season, when the facility's C storage pond is nearly empty, retention time is lowest and potential dilution from stormwater is lowest. The seasonal mass limitation of NL in the previous permit is also being retained, and the monitoring frequency is being retained at once per discharge season, based on BPJ.

**AOX:** Previous permits developed AOX limitations based on cumulative data from each of three active bleach lines. At this point in time, the facility only operates one single bleach line (F Bleach Line) as submitted in their VPDES Permit application dated May 18, 2015. FLOW from 2C appl is 2.7 MG

Because the facility is a seasonal discharger and is prohibited from discharging final effluent during specific periods of time, it is classified as a non-continuous discharger under 40 CFR §430.01(k)(2). The monitoring frequency and effluent limitation for AOX is determined by the particular subsections of 40 CFR §430.02 and §430.24, respectively, applicable to the bleach line at various points in time for non-continuous dischargers. The AOX effluent limitations, however, apply at end-of-pipe (Outfall 001). The numeric AOX effluent limitation is applicable at outfall 001. Monitoring frequency was 1/week based on Effluent Guidelines, Effective April 17, 2006, the monitoring frequency was reduced to 1/month, based on BPJ, and allowable under 40 CFR §430.02.

The point of compliance is end-of-pipe at Outfall 001. The numeric values for the AOX limitations are determined by summing the applicable limitations for AOX for each of the contributing bleach lines. With this reissuance, only the F Bleach Line is in active operation.

The resulting concentration-based annual average AOX limitation is 21 mg/l (21.28 mg/l rounded to 21 mg/l). Based on BPJ, because the discharge is non-continuous and there is no practical method for determining the annual average of this non-continuous discharge, the annual average effluent limitation for AOX is being expressed as a Monthly Average AOX limitation of 21 mg/l. Expression of the Annual Average AOX limitation in mass units is accomplished by calculating the allowable annual mass from the contributing bleach lines (40 CFR §430.24(b)(4)(i)). The resulting mass-based Annual Average AOX limitation of 175,000 lb/year is calculated using the current production of 920 ADTPD and reported flow 2.7 MG (2C appl. data). Based on BPJ, this annual average effluent limitation for AOX is being expressed as a Seasonal Maximum limitation of 175,000 lb/season, because there is no practical method for determining the annual average of this non-continuous discharge.

Annual Average AOX Limitation VATIP Tier 1 (0.26 kg/kg) non-continuous

$$\frac{0.26 \text{ kg}}{\text{Kkg}} \times \frac{920 \text{ T}}{2700000 \text{ gal}} \times \frac{\text{kg}}{2200 \text{ lb}} \times \frac{2000 \text{ lb}}{\text{T}} \times \frac{1000 \text{ mg}}{\text{g}} \times \frac{1000 \text{ g}}{\text{kg}} \times \frac{\text{gal}}{3.7851} = \frac{239.2}{11.24} = 21.28 \text{ mg/l}$$

Daily Maximum AOX Limitation VATIP Tier 1 (0.58 kg/kg) non-continuous

$$\frac{0.58 \text{ kg}}{\text{Kkg}} \times \frac{920 \text{ T}}{2700000 \text{ gal}} \times \frac{\text{kg}}{2200 \text{ lb}} \times \frac{2000 \text{ lb}}{\text{T}} \times \frac{1000 \text{ mg}}{\text{g}} \times \frac{1000 \text{ g}}{\text{kg}} \times \frac{\text{gal}}{3.7851} = \frac{533.6}{11.24} = 47.47 \text{ mg/l}$$

Mass Annual Limitation = Seasonal Maximum Limitation

$$\frac{21.28 \text{ mg}}{\text{L}} \times \frac{(2.7 \text{ MG})}{\text{day}} \times \frac{(365 \text{ day})}{\text{yr}} \times \frac{(8.34 \text{ lb})}{\text{gal}} = 174,901.8 = 175,000 \text{ lb/yr}$$

6-19

**FORM 2 C - Section III.C INSERT**  
**Internal Outfall Information**

*"F" Bleach Line*

Outfall Number	Bleach Line	Bleaching Sequence	Fiber Furnish	Unfinished Pulp Entering Bleach Plant		
				Maximum Daily Production (ADTPD)	Long-Term Avg Production (ADTPD)	Long-Term Avg Flow (MGD)
103	F	ODED	SW	1,320	920	2.73
103	F	ODED (w/semi)	SW	TBD	TBD	

ADTPD      Air Dried Tons per Day  
 SW        Softwood furnish  
 Semi      Semi-bleached pulp comes off the O2 stage without entering the bleach plant  
 TBD      Future fluff pulp product to be determined at a later date  
 Flows are projected estimates.  
 Production rate as defined at 40 CFR 430.01n

International Paper - Franklin Mill  
 VPDES Permit No VA0004162

Dissolved metals data were not available for outfall 001; total metals data submitted with the application for reissuance are as follows:

Antimony	<5 ug/l
Arsenic	<5 ug/l
Cadmium	< 0.5 ug/l
Copper	<2 ug/l
Lead	<5 ug/l
Mercury	< 0.2 ug/l
Nickel	<5 ug/l
Zinc	17 ug/l

All metals concentrations are below the freshwater acute and chronic numeric water quality criteria, and would not cause a violation of the State's water quality standards at these concentrations. No metals effluent limitations are included in this reissued permit.

No organic compounds were detected above method detection levels using methods 624/625.

Outfall 002

Outfall 002 is storm water only and drains the north rail yard area to the Blackwater River. Form 2F data indicate no significant levels of pollutants. The outfall is subject to the facility storm water pollution prevention plan requirements, which includes inspection and record keeping requirements. Railcar unloading areas are surrounded by containment curbing to prevent accidental release or contamination of storm water. The discharge of any process wastewater from this outfall is prohibited under part I.A of the permit. Therefore, based on BPJ, no monitoring is being required.

Outfalls 006 and 007

Outfalls 006 and 007 are storm water only and drain mostly unpaved surfaces and railroad bed to Washole Creek. Form 2F data indicate no significant levels of pollutants. The outfalls are subject to the facility storm water pollution prevention plan requirements; which includes inspection and record keeping requirements. Railcars were temporarily staged in these areas, but are not unloaded. No railcars are currently stored in the area, but could be in the future. The outfall pipes are provided with a valve that can be closed in the event of a spill to prevent accidental release or contamination of storm water. Due to the new non-operational status of the plant, there are no chemicals stored in these areas, and these outfalls are being reclassified to no longer require chemical monitoring.

Outfalls 008, 009, 011

Outfalls 008, 009 and 011 are storm water only and drain natural vegetated areas outside the facility solid waste landfill. The outfalls are subject to the facility storm water pollution prevention plan requirements, which include inspection and record keeping requirements. Storm water draining from these areas does not come into contact with materials entering the landfill. Pesticides, herbicides, soil conditioners and fertilizers are not applied in these areas. The discharge of any process wastewater from this outfall is prohibited under part I.A of the permit. Therefore, based on BPJ, no monitoring is being required.

Outfalls 012, 013 and 014

Outfalls 012, 013 and 014 drain areas associated with trailer and construction materials storage. The outfalls are subject to the facility storm water pollution prevention plan requirements, which includes inspection and record keeping requirements. The discharge of any process wastewater from these outfalls is prohibited under part I.A of the permit. Therefore, based on BPJ, no monitoring is being required.

Outfalls 010 and 015

Outfalls 010 and 015 consist of uncontaminated, untreated fresh groundwater used for facility water supply resulting from periodic flushing of the water supply line for maintenance purposes. The discharge of any process wastewater or storm water from these outfalls is prohibited under part I.A of the permit. Because the discharge is uncontaminated and the facility keeps detailed records of its supply water quality for process quality control and other purposes, no monitoring is required.

## Mixing Zone Predictions for International Paper

Effluent Flow = 181 MGD  
Stream 7Q10 = 0.72 MGD  
Stream 30Q10 = 2 MGD  
Stream 1Q10 = 0.25 MGD  
Stream slope = 1 ft/ft  
Stream width = 200 ft  
Bottom scale = 1  
Channel scale = 1

---

### Mixing Zone Predictions @ 7Q10

Depth = .1602 ft  
Length = 386145.82 ft  
Velocity = 8.7803 ft/sec  
Residence Time = .509 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 7Q10 may be used.

---

### Mixing Zone Predictions @ 30Q10

Depth = .1609 ft  
Length = 384798.37 ft  
Velocity = 8.8049 ft/sec  
Residence Time = .5058 days

#### Recommendation:

A complete mix assumption is appropriate for this situation and the entire 30Q10 may be used.

---

### Mixing Zone Predictions @ 1Q10

Depth = .1599 ft  
Length = 386663.89 ft  
Velocity = 8.7712 ft/sec  
Residence Time = 12.2454 hours

#### Recommendation:

A complete mix assumption is appropriate for this situation providing no more than 8.17% of the 1Q10 is used.

---

6-23

8/25/2015 2:45:43 PM

Facility = IP  
Chemical = Ammonia  
Chronic averaging period = 30  
WLAa = 8.4  
WLAc = 2.61  
Q.L. = 0.2  
# samples/mo. = 1  
# samples/wk. = 1

Summary of Statistics:

# observations = 11  
Expected Value = .631265  
Variance = .136519  
C.V. = 0.585308  
97th percentile daily values = 1.52626  
97th percentile 4 day average = 1.03879  
97th percentile 30 day average = .758155  
# < Q.L. = 1  
Model used = delta lognormal

No Limit is required for this material

The data are:

0.55  
0.28  
0.45  
0.54  
0.99  
1.11  
0.36  
0.39  
0.11  
0.89  
1.08

Current permit limit  
carried forward. Anti-  
backsliding prohibits limit  
from being removed.

6-24

Analysis of the Union Camp Corp. effluent data for Ammonia

The statistics for Ammonia are:

Number of values = 41  
Quantification level = .2  
Number < quantification = 0  
Expected value = 4.507973  
Variance = 8.72227  
C.V. = .6551391  
97th percentile = 11.60416  
Statistics used = lognormal

The WLAs for Ammonia are:

Acute WLA = 12.53  
Chronic WLA = 2.15  
Human Health WLA = 1E+07

] using 90% pH & T°C (Dec. - Mar. data only)

The limits are based on chronic toxicity and 4 samples/month.

Maximum daily limit = 3.194471  
Average monthly limit = 2.15

It is recommended that only the maximum daily limit be used.

DATA

2.7  
4.6  
4.8  
4.5  
4.8  
4.8  
4.9  
4.8  
4.8  
4.9  
4.8  
5  
4.6  
5.1  
5  
4.8  
4.9  
6.4  
6.6  
5.2  
4.7  
.5  
.6  
1.3  
.9  
1.3  
3.8  
4.3  
4.5  
4.5  
4.6  
4.4  
4.3  
4.1  
4.1  
3  
5  
5  
4.2  
4.2  
6.3

1994 Permit Issuance  
NH<sub>3</sub> Data & Limit  
Calculation.

See 2015 sheet for limit  
verification.

# FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: International Paper  
Receiving Stream: Blackwater River

Permit No.: VA0004162

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information			Stream Flows			Mixing Information			Effluent Information		
Mean Hardness (as CaCO <sub>3</sub> ) =	48.1 mg/L		1Q10 (Annual) =	0.25 MGD		Annual - 1Q10 Mix =	8.17 %		Mean Hardness (as CaCO <sub>3</sub> ) =	108 mg/L	
90% Temperature (Annual) =	25.13 deg C		7Q10 (Annual) =	0.72 MGD		- 7Q10 Mix =	100 %		90% Temp (Annual) =	5 deg C	
90% Temperature (Wet season) =	deg C		30Q10 (Annual) =	2 MGD		- 30Q10 Mix =	100 %		90% Temp (Wet season) =	deg C	
90% Maximum pH =	7 SU		1Q10 (Wet season) =	0.25 MGD		Wet Season - 1Q10 Mix =	100 %		90% Maximum pH =	8 SU	
10% Maximum pH =	SU		30Q10 (Wet season) =	MGD		- 30Q10 Mix =	100 %		10% Maximum pH =	7.16 SU	
Tier Designation (1 or 2) =	1		30Q5 =	MGD					Discharge Flow =	181 MGD	
Public Water Supply (PWS) Y/N? =	N		Harmonic Mean =	702.2 MGD							
Trout Present Y/N? =	n										
Early Life Stages Present Y/N? =	y										

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Baseline			Antidegradation Allocations			Most Limiting Allocations		
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)
Acenaphthene	5	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	9.9E+02
Acrolein	0	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	--	--	9.3E+00
Acrylonitrile <sup>c</sup>	0	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	1.2E+01
Aldrin <sup>c</sup>	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	--	--	--	--	--	--	3.0E+00	--	2.4E-03
Ammonia-N (mg/l) (Yearly)	0	8.41E+00	2.58E+00	na	--	8.42E+00	2.61E+00	--	--	--	--	--	--	8.42E+00	2.61E+00	na
Ammonia-N (mg/l) (High Flow)	0	8.49E+00	2.43E+00	na	--	8.50E+00	2.43E+00	--	--	--	--	--	--	8.60E+00	2.43E+00	na
Anthracene	0	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	4.0E+04
Antimony	0	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	6.4E+02
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	--	--	--	--	--	--	3.4E+02	1.5E+02	na
Barium	0	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na
Benzene <sup>c</sup>	0	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	2.8E+03
Benzidine <sup>c</sup>	0	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	9.8E-03
Benzo (a) anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	8.8E-01
Benzo (b) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	8.8E-01
Benzo (k) fluoranthene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	8.8E-01
Benzo (a) pyrene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	8.8E-01
Bis(2-Chloroethyl) Ether <sup>c</sup>	0	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	2.8E+01
Bis(2-Chloroisopropyl) Ether <sup>c</sup>	0	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	--	--	6.8E+04
Bis 2-Ethylhexyl Phthalate <sup>c</sup>	0	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	1.1E+02
Bromodiform <sup>c</sup>	0	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	6.8E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	1.9E+03
Cadmium	0	4.3E+00	1.2E+00	na	--	4.3E+00	1.2E+00	--	--	--	--	--	--	4.3E+00	1.2E+00	na
Carbon Tetrachloride <sup>c</sup>	0	--	--	na	1.8E+01	--	--	--	--	--	--	--	--	--	--	7.8E+01
Chlordane <sup>c</sup>	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	--	--	--	--	--	--	2.4E+00	4.3E-03	na
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	--	--	--	--	--	--	8.6E+05	2.3E+05	na
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	--	--	--	--	--	--	1.9E+01	1.1E+01	na
Chlorobenzene	0	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	1.6E+03



Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane <sup>c</sup>	0	--	--	na	1.3E+02	--	--	na	6.3E+02	--	--	--	--	--	--	--	--	--	--	na	6.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chloronaphthalene	0	--	--	na	1.9E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	6.1E+02	7.9E+01	na	--	6.1E+02	7.9E+01	na	--	--	--	--	--	--	--	--	--	6.1E+02	7.9E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene <sup>c</sup>	0	--	--	na	1.8E-02	--	--	na	8.8E-02	--	--	--	--	--	--	--	--	--	--	na	8.8E-02
Copper	0	1.4E+01	9.5E+00	na	--	1.4E+01	9.5E+00	na	--	--	--	--	--	--	--	--	--	1.4E+01	9.5E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	1.6E+04
DDD <sup>c</sup>	0	--	--	na	3.1E-03	--	--	na	1.5E-02	--	--	--	--	--	--	--	--	--	--	na	1.5E-02
DDE <sup>c</sup>	0	--	--	na	2.2E-03	--	--	na	1.1E-02	--	--	--	--	--	--	--	--	--	--	na	1.1E-02
DDT <sup>c</sup>	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	1.1E-02	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	1.1E-02
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	1.7E-01	1.7E-01	na	--
Dibenz(a,h)anthracene <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	8.8E-01	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+02
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+02
3,3-Dichlorobenzidine <sup>c</sup>	0	--	--	na	2.8E-01	--	--	na	1.4E+00	--	--	--	--	--	--	--	--	--	--	na	1.4E+00
Dichlorobromomethane <sup>c</sup>	0	--	--	na	1.7E+02	--	--	na	8.3E+02	--	--	--	--	--	--	--	--	--	--	na	8.3E+02
1,2-Dichloroethane <sup>c</sup>	0	--	--	na	3.7E+02	--	--	na	1.8E+03	--	--	--	--	--	--	--	--	--	--	na	1.8E+03
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+03
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	1.5E+02	--	--	na	7.3E+02	--	--	--	--	--	--	--	--	--	--	na	7.3E+02
1,2-Dichloropropane <sup>c</sup>	0	--	--	na	2.1E+02	--	--	na	1.0E+03	--	--	--	--	--	--	--	--	--	--	na	1.0E+03
1,3-Dichloropropene <sup>c</sup>	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	2.6E-03	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	2.6E-03
Dieldrin <sup>c</sup>	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
Diethyl Phthalate	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+02
2,4-Dimethylphenol	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+06
Dimethyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
Di-n-Butyl Phthalate	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
2,4 Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
2-Methyl-4,6-Dinitrophenol	0	--	--	na	3.4E+01	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
2,4-Dinitrotoluene <sup>c</sup>	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-08
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	2.0E+00	--	--	na	9.8E+00	--	--	--	--	--	--	--	--	--	--	na	9.8E+00
1,2-Diphenylhydrazine <sup>c</sup>	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	6.0E-02
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	--	1.0E-02	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor <sup>c</sup>	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	3.9E-03	5.2E-01	3.8E-03	na	3.9E-03	5.2E-01	3.8E-03	na	3.9E-03	5.2E-01	3.8E-03	na	3.9E-03
Heptachlor Epoxide <sup>c</sup>	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	1.9E-03	5.2E-01	3.8E-03	na	1.9E-03	5.2E-01	3.8E-03	na	1.9E-03	5.2E-01	3.8E-03	na	1.9E-03
Hexachlorobenzene <sup>c</sup>	0	--	--	na	2.9E-03	--	--	na	1.4E-02	--	--	--	--	--	--	--	--	--	--	na	1.4E-02
Hexachlorobutadiene <sup>c</sup>	0	--	--	na	1.8E+02	--	--	na	8.8E+02	--	--	--	--	--	--	--	--	--	--	na	8.8E+02
Hexachlorocyclohexane	0	--	--	na	4.9E-02	--	--	na	2.4E-01	--	--	--	--	--	--	--	--	--	--	na	2.4E-01
Alpha-BHC <sup>c</sup>	0	--	--	na	1.7E-01	--	--	na	8.3E-01	--	--	--	--	--	--	--	--	--	--	na	8.3E-01
Beta-BHC <sup>c</sup>	0	--	--	na	1.8E+00	--	--	na	8.8E+00	9.5E-01	--	--	--	9.5E-01	--	--	--	9.5E-01	--	na	8.8E+00
Hexachlorocyclohexane	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Gamma-BHC <sup>c</sup> (Lindane)	0	--	--	na	3.3E+01	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Hexachlorocyclopentadiene	0	--	2.0E+00	na	--	--	--	2.0E+00	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Hexachloroethane <sup>c</sup>	0	--	--	na	1.8E-01	--	--	na	8.8E-01	--	--	--	--	--	--	--	--	--	--	na	8.8E-01
Hydrogen Sulfide	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Indeno (1,2,3-cd) pyrene <sup>c</sup>	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Iron	0	--	--	na	9.6E+03	--	--	na	4.7E+04	--	--	--	--	--	--	--	--	--	--	na	4.7E+04
Isophorone <sup>c</sup>	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Kepone	0	--	0.0E+00	na	--	--	--	0.0E+00	--	1.3E+02	1.5E+01	na	--	1.3E+02	1.5E+01	na	--	1.3E+02	1.5E+01	na	--
Lead	0	1.3E+02	1.5E+01	na	--	--	--	1.5E+01	--	--	--	--	--	--	--	--	--	--	--	na	--
Malathion	0	--	1.0E-01	na	--	--	--	1.0E-01	--	--	--	--	--	--	--	--	--	--	--	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Methylene Chloride <sup>c</sup>	0	--	--	na	5.9E+03	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
Methoxychlor	0	--	3.0E-02	na	--	--	--	3.0E-02	--	--	--	--	--	--	--	--	--	--	--	na	--
Mirex	0	--	0.0E+00	na	--	--	--	0.0E+00	--	1.9E+02	2.2E+01	na	4.6E+03	1.9E+02	2.2E+01	na	4.6E+03	1.9E+02	2.2E+01	na	4.6E+03
Nickel	0	1.9E+02	2.2E+01	na	4.6E+03	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine <sup>c</sup>	0	--	--	na	3.0E+01	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
N-Nitrosodiphenylamine <sup>c</sup>	0	--	--	na	6.0E+01	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
N-Nitrosodi-n-propylamine <sup>c</sup>	0	--	--	na	5.1E+00	--	--	na	2.5E+01	--	--	--	--	--	--	--	--	--	--	na	2.5E+01
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	3.1E-03	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total <sup>c</sup>	0	--	1.4E-02	na	6.4E-04	--	--	1.4E-02	--	--	--	--	--	--	--	--	--	--	--	na	--
Pentachlorophenol <sup>c</sup>	0	4.1E-01	6.6E-02	na	3.0E+01	4.1E-01	6.6E-02	na	1.5E+02	--	--	--	--	--	--	--	--	4.1E-01	6.6E-02	na	1.5E+02
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
(mem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	4.2E+03
Silver	0	3.9E+00	--	na	--	3.9E+00	--	na	--	--	--	--	--	--	--	--	--	3.9E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane <sup>c</sup>	0	--	--	na	4.0E+01	--	--	na	2.0E+02	--	--	--	--	--	--	--	--	--	--	na	2.0E+02
Trichloroethylene <sup>c</sup>	0	--	--	na	3.3E+01	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	--	--	na	4.7E-01
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene <sup>c</sup>	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	1.4E-02	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	1.4E-02
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	--	--	na	7.0E+01
1,1,2-Trichloroethane <sup>c</sup>	0	--	--	na	1.6E+02	--	--	na	7.8E+02	--	--	--	--	--	--	--	--	--	--	na	7.8E+02
Trichloroethylene <sup>c</sup>	0	--	--	na	3.0E+02	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
2,4,6-Trichlorophenol <sup>c</sup>	0	--	--	na	2.4E+01	--	--	na	1.2E+02	--	--	--	--	--	--	--	--	--	--	na	1.2E+02
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride <sup>c</sup>	0	--	--	na	2.4E+01	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Zinc	0	1.3E+02	1.3E+02	na	2.6E+04	1.3E+02	1.3E+02	na	2.6E+04	--	--	--	--	--	--	--	--	1.3E+02	1.3E+02	na	2.6E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information. Antidegradation WLAs are based upon a complete mix.  
Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic  
= (0.1(WQC - background conc.) + background conc.) for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	7.2E-01
Chromium III	4.7E+01
Chromium VI	6.4E+00
Copper	5.8E+00
Iron	na
Lead	9.0E+00
Manganese	na
Mercury	4.8E-01
Nickel	1.3E+01
Selenium	3.0E+00
Silver	1.6E+00
Zinc	5.0E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

Effluent  
Hardness is an average from 2015  
toxicity Sample data. pH is from  
data Submitted by the facility on 8/24/15.  
see attached.

Mix of 8.1790  
calculated using max  
flow from application  
see attached.

## — Diokin

### Implementation:

Implementation is relatively simple and permit limits should be calculated according to the following protocol:

Obtain the harmonic mean stream flow:

Obtain the design flow for the effluent

Apply a mass balance equation to calculate the allowable effluent concentration:

$$WLA = \frac{Cr(Q_d + Q_{hm})}{Q_d}$$

Where: LA = wasteload allocation (concentration)

Q<sub>d</sub> = effluent flow

Q<sub>hm</sub> = stream flow (Harmonic mean)

Cr = Human health criteria from the standards

Note that in a single discharge situation the WLA will be equal to the permit limit. However, where multiple discharges impact the same stream section the total allowable load must be divided among the discharges.

Note: if the stream background concentration is not equal to zero the central office should be contacted for assistance with the proper calculations.

**Note: the statistical program WLA.EXE will no longer be used to estimate a reasonable potential for the human health criteria.**

### Non-Carcinogens

The human health standards for non-carcinogens are based on a shorter exposure time than that for the carcinogens. There is no specified exposure time in the standards but a consensus of agency opinion is that 30 days is the appropriate period over which to consider these criteria. There is also no recurrence interval mentioned but again an agency consensus indicates that 5 years is appropriate.

What this basically says is that if the highest 30 day average concentration that a person is exposed to is equal to the criteria and they are only exposed once every 5 years then no toxic effects to humans should result.

### Implementation:

Implementation is relatively simple and permit limits should be calculated according to the following protocol:

Obtain the 30Q5 stream flow:

Obtain the design flow for the effluent

Apply a mass balance equation to calculate the allowable effluent concentration:

6-30  
VA Surface Water Criteria - Dioxin

2,4-Dinitrotoluene (µg/l) 121142 Known or suspected carcinogen; human health criteria at risk level 10 <sup>-5</sup>					1.1	54
Dioxin 2, 3, 7, 8-tetrachlorodibenzo- p-dioxin (µg/l) 1746016					5.0 E-8	5.1 E-8
1,2-Diphenylhydrazine (µg/l) 122667 Known or suspected carcinogen; human health criteria at risk level 10 <sup>-5</sup>					0.36	2.0
Dissolved Oxygen (µg/l) (See )						
Alpha-Endosulfan (µg/l) 959988 Total concentration alpha and beta- endosulfan shall not exceed aquatic life criteria.	0.22	0.056	0.034	0.0087	62	89

North Carolina HHS

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May 1, 2007

Disclaimer: This table is intended to provide summary information only. It does not substitute for any written regulation, nor is it a regulation itself.

The following standards, criteria, or toxic concentrations are adopted per 15A NCAC 2B. See last page for appropriate use information.

Pollutant	CAS #	Freshwater Aquatic Life	Saltwater Aquatic Life	Water Supply (WS) <sup>1</sup>	Human Health (HH) <sup>2</sup>	Trout Waters (Tr)	High Quality Waters (HQW)	Swamp Waters (Sw)	Synonyms & Other Info	Carcinogen
Aldrin	309-00-2	ug/l (unless noted)	0.003	0.05 ng/L	0.05 ng/L	ug/l (unless noted)	ug/l (unless noted)			y
Arsenic	7440-38-2	50	50	10	10					y
Barium	7440-39-3			1.0 mg/L						n
Bacterial Indicators	see enterococcus and fecal coliform									NA
Benzene	71-43-2			1.19	51					y
Beryllium	7440-41-7	6.5								n
Cadmium	7440-43-9	2 (N)	5 (N)			0.4 (N)				n
Carbon Tetrachloride	56-23-5			0.254	1.6				Benzoinform, Carbon Chloride	y
Chlordane	57-74-9	0.004	0.004	0.8 ng/L	0.8 ng/L					y
Chloride	16887-00-6	230 mg/L (AL)		250 mg/L						n
Chlorine (TRC)	7782-50-5	17								n
Chlorinated Benzenes				488						y
Chlorinated Phenols				1.0 (N)		15(N)				NA
Chlorophyll -a, corrected		40(N)	40(N)							NA
Chromium		50	20							NA
Copper	7440-50-8	7 (AL)	3 (AL)							n
Cyanide	57-12-5	5 (N)	1							n
D, 2,4-	94-75-7			100					2,4-Dichlorophenoxy acetic acid	n
DDT, 4,4'-	50-29-3	0.001	0.001	0.2 ng/L	0.2 ng/L				4,4'-Dichlorodiphenylchloroethane	y
Demeton	8065-48-3	0.1	0.1							n
Dieldrin	60-57-1	0.002	0.002	0.05 ng/L	0.05 ng/L					y
Dioxin (2,3,7,8-TCDD)	1746-01-6			0.000005 ng/L	0.000005 ng/L				2,3,7,8-Tetrachlorodibenzo-p-dioxin	y
Dissolved Gases		110% sat (N)	110% sat (N)							NA

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## § 430.24

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achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) Except as provided in paragraph (b) of this section—

(1) The following effluent limitations apply with respect to each fiber line that does not use an exclusively TCF bleaching process, as disclosed by the discharger in its NPDES permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22:

## SUBPART B

Pollutant or pollutant property	BAT effluent limitations		
	Maximum for any 1 day		Monthly average
TCDD .....	<ML <sup>a</sup>		(b)
TCDF .....	31.9 <sup>c</sup>		(b)
Chloroform .....	6.92 <sup>d</sup>		4.14 <sup>(d)</sup>
Trichlorosyringol .....	<ML <sup>a</sup>		(b)
3,4,5-trichlorocatechol .....	<ML <sup>a</sup>		(b)
3,4,6-trichlorocatechol .....	<ML <sup>a</sup>		(b)
3,4,5-trichloroguaiacol .....	<ML <sup>a</sup>		(b)
3,4,6-trichloroguaiacol .....	<ML <sup>a</sup>		(b)
4,5,6-trichloroguaiacol .....	<ML <sup>a</sup>		(b)
2,4,5-trichlorophenol .....	<ML <sup>a</sup>		(b)
2,4,6-trichlorophenol .....	<ML <sup>a</sup>		(b)
Tetrachlorocatechol .....	<ML <sup>a</sup>		(b)
Tetrachloroguaiacol .....	<ML <sup>a</sup>		(b)
2,3,4,6-tetrachlorophenol .....	<ML <sup>a</sup>		(b)
Pentachlorophenol .....	<ML <sup>a</sup>		(b)
	Continuous dischargers		Non-continuous dischargers
	Maximum for any 1 day (kg/kg)	Monthly average (kg/kg)	Annual average (kg/kg)
AOX .....	0.951	0.623	0.512
COD .....	(e)	(e)	(e)

<sup>a</sup>"<ML" means less than the minimum level specified in § 430.01(i) for the particular pollutant.

<sup>b</sup>This regulation does not specify this type of limitation for this pollutant; however, permitting authorities may do so as appropriate.

<sup>c</sup>Picograms per liter.

<sup>d</sup>Grams per 1,000 kilograms (g/kg).

<sup>e</sup>[Reserved]

(2) The following effluent limitations apply with respect to each fiber line that uses exclusively TCF bleaching processes, as disclosed by the dis-

charger in its NPDES permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22:

## SUBPART B

Pollutant or pollutant property	BAT effluent limitations (TCF)			
	Continuous dischargers		Non-continuous dischargers	
	Maximum for any 1 day	Monthly average	Maximum for any 1 day	Annual average
	kg/kg (or pounds per 1,000 lb) of product			
AOX .....	<ML <sup>a</sup>	(b)	<ML <sup>a</sup>	(b)
COD .....	(c)	(c)	(c)	(c)

<sup>a</sup>"<ML" means less than the minimum level specified in § 430.01(i) for the particular pollutant.

<sup>b</sup>This regulation does not specify this type of limitation for this pollutant; however, permitting authorities may do so as appropriate.

<sup>c</sup>[Reserved]

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- 430.15 New source performance standards (NSPS).
- 430.16 Pretreatment standards for existing sources (PSES).
- 430.17 Pretreatment standards for new sources (PSNS).

**Subpart B—Bleached Papergrade Kraft and Soda Subcategory**

- 430.20 Applicability; description of the bleached papergrade kraft and soda subcategory.
- 430.21 Specialized definitions.
- 430.22 Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT).
- 430.23 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.24 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.25 New source performance standards (NSPS).
- 430.26 Pretreatment standards for existing sources (PSES).
- 430.27 Pretreatment standards for new sources (PSNS).
- 430.28 Best management practices (BMPs).

**Subpart C—Unbleached Kraft Subcategory**

- 430.30 Applicability; description of the unbleached kraft subcategory.
- 430.31 Specialized definitions.
- 430.32 Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT).
- 430.33 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.34 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.35 New source performance standards (NSPS).
- 430.36 Pretreatment standards for existing sources (PSES).
- 430.37 Pretreatment standards for new sources (PSNS).

**Subpart D—Dissolving Sulfite Subcategory**

- 430.40 Applicability; description of the dissolving sulfite subcategory.
- 430.41 Specialized definitions.
- 430.42 Effluent limitations representing the degree of effluent reduction attainable

by the application of best practicable control technology currently available (BPT).

- 430.43 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.44 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.45 New source performance standards (NSPS).
- 430.46 Pretreatment standards for existing sources (PSES).
- 430.47 Pretreatment standards for new sources (PSNS).

**Subpart E—Papergrade Sulfite Subcategory**

- 430.50 Applicability; description of the papergrade sulfite subcategory.
- 430.51 Specialized definitions.
- 430.52 Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT).
- 430.53 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.54 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.55 New source performance standards (NSPS).
- 430.56 Pretreatment standards for existing sources (PSES).
- 430.57 Pretreatment standards for new sources (PSNS).
- 430.58 Best management practices (BMPs).

**Subpart F—Semi-Chemical Subcategory**

- 430.60 Applicability; description of the semi-chemical subcategory.
- 430.61 Specialized definitions.
- 430.62 Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT).
- 430.63 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.64 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.65 New source performance standards (NSPS).
- 430.66 Pretreatment standards for existing sources (PSES).



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standards for new sources (PSNS) if it uses chlorophenolic-containing biocides. Permittees not using chlorophenolic-containing biocides

must certify to the permit-issuing authority that they are not using these biocides:

SUBPART A  
[PSNS]

Pollutant or pollutant property	Maximum for any 1 day	
	Milligrams/liter (mg/l)	Kg/kg (or pounds per 1,000 lb) of product <sup>a</sup>
Pentachlorophenol .....	(0.012)(50.7)/y .....	0.0025
Trichlorophenol .....	(0.089)(50.7)/y .....	0.019

y = wastewater discharged in kgal per ton of product.

<sup>a</sup> The following equivalent mass limitations are provided as guidance in cases when POTWs find it necessary to impose mass effluent limitations.

**Subpart B—Bleached Papergrade Kraft and Soda Subcategory**

**§ 430.20 Applicability; description of the bleached papergrade kraft and soda subcategory.**

The provisions of this subpart apply to discharges resulting from: The production of market pulp at bleached kraft mills; the integrated production of paperboard, coarse paper, and tissue paper at bleached kraft mills; the integrated production of pulp and fine papers at bleached kraft mills; and the integrated production of pulp and paper at soda mills.

**§ 430.21 Specialized definitions.**

(a) The general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 and § 430.01 of this part apply to this subpart.

(b) *Baseline BAT limitations or NSPS* means the BAT limitations specified in § 430.24(a) (1) or (2), as applicable, and the NSPS specified in § 430.25(b) (1) or (2), as applicable, that apply to any direct discharger that is not “enrolled” in the “Voluntary Advanced Technology Incentives Program.”

(c) *Enroll* means to notify the permitting authority that a mill intends to participate in the “Voluntary Advanced Technology Incentives Program.” A mill can enroll by indicating its intention to participate in the program either as part of its application for a National Pollutant Discharge Elimination System (NPDES) permit, or through separate correspondence to

the permitting authority as long as the mill signs the correspondence in accordance with 40 CFR 122.22.

(d) *Existing effluent quality* means the level at which the pollutants identified in § 430.24(a)(1) are present in the effluent of a mill “enrolled” in the “Voluntary Advanced Technology Incentives Program.”

(e) *Kappa number* is a measure of the lignin content in unbleached pulp, determined after pulping and prior to bleaching.

(f) *Voluntary Advanced Technology Incentives Program* is the program established under § 430.24(b) (for existing direct dischargers) and § 430.25(c) (for new direct dischargers) whereby participating mills agree to accept enforceable effluent limitations and conditions in their NPDES permits that are more stringent than the “baseline BAT limitations or NSPS” that would otherwise apply, in exchange for regulatory- and enforcement-related rewards and incentives.

**§ 430.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).**

(a) Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

## Environmental Protection Agency

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## SUBPART B

[BPT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	15.45	8.05	4.52
TSS .....	30.4	16.4	9.01
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

## SUBPART B

[BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	13.65	7.1	3.99
TSS .....	24.0	12.9	7.09
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

## SUBPART B

[BPT effluent limitations for bleached kraft facilities where pulp and fine papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	10.6	5.5	3.09
TSS .....	22.15	11.9	6.54
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

## SUBPART B

[BPT effluent limitations for soda facilities where pulp and paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	13.7	7.1	3.99
TSS .....	24.5	13.2	7.25
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

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(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, resulting from the use of wet barking operations, which may be discharged by a point source subject to the provisions of this subpart. These

limitations are in addition to the limitations set forth in paragraph (a) of this section and shall be calculated using the proportion of the mill's total production due to use of logs which are subject to such operations:

## SUBPART B

[BPT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD <sub>5</sub> .....	2.3	1.2	0.70
TSS .....	5.3	2.85	1.55
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

## SUBPART B

[BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD <sub>5</sub> .....	2.25	1.2	0.65
TSS .....	5.75	3.1	1.70
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

## SUBPART B

[BPT effluent limitations for bleached kraft facilities where pulp and fine papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD <sub>5</sub> .....	1.95	1.0	0.55
TSS .....	5.3	2.85	1.55
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

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## SUBPART B

[BPT effluent limitations for soda facilities where pulp and papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	2.05	1.1	0.60
TSS .....	5.25	2.8	1.55
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

(c) The following limitations establish the quantity or quality of pollutants or pollutant parameters, controlled by this section, resulting from the use of log washing or chip washing operations, which may be discharged by a point source subject to the provisions of this subpart. These limitations are in addition to the limitations set forth in paragraph (a) of this section and shall be calculated using the proportion of the mill's total production due to use of logs and/or chips which are subject to such operations:

sions of this subpart. These limitations are in addition to the limitations set forth in paragraph (a) of this section and shall be calculated using the proportion of the mill's total production due to use of logs and/or chips which are subject to such operations:

## SUBPART B

[BPT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	0.2	0.1	0.1
TSS .....	0.6	0.3	0.15
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

## SUBPART B

[BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	0.25	0.15	0.05
TSS .....	0.65	0.35	0.20
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

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SUBPART B

[BPT effluent limitations for bleached kraft facilities where pulp and fine papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	0.2	0.1	0.05
TSS .....	0.55	0.3	0.15
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for soda facilities where pulp and papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	0.15	0.1	0.05
TSS .....	0.5	0.25	0.15
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, resulting from the use of log flumes or log ponds, which may be discharged by a point source subject to the provisions of this subpart. These

limitations are in addition to the limitations set forth in paragraph (a) of this section and shall be calculated using the proportion of the mill's total production due to use of logs which are subject to such operations:

SUBPART B

[BPT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	0.4	0.2	0.15
TSS .....	1.15	0.6	0.35
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

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## SUBPART B

[BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	0.45	0.25	0.10
TSS .....	1.25	0.7	0.35
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

## SUBPART B

[BPT effluent limitations for bleached kraft facilities where pulp and fine papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	0.35	0.2	0.10
TSS .....	1.15	0.6	0.30
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

## SUBPART B

[BPT effluent limitations for soda facilities where pulp and papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5 .....	0.3	0.2	0.10
TSS .....	1.1	0.55	0.35
pH .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 5.0 to 9.0 at all times.

**§ 430.23 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). The limitations shall be the same as those

specified in § 430.22 of this subpart for the best practicable control technology currently available (BPT).

**§ 430.24 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must

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§ 430.24

(b) The following limitations apply with respect to each fiber line enrolled in the Voluntary Advanced Technology Incentives Program:

(1) Stage 1 Limitations: Numeric limitations that are equivalent to the discharger's existing effluent quality or the discharger's current effluent limitations established under CWA section 301(b)(2), whichever are more stringent, for the pollutants identified in paragraph (a)(1) of this section (with the exception of COD). For AOX, the permitting authority must determine existing effluent quality for each fiber line enrolled in the Voluntary Advanced Technology Incentives Program at the end of the pipe based on loadings attributable to that fiber line. For the remaining pollutants, with the exception of COD, the permitting authority must determine existing effluent quality for each fiber line enrolled in the Voluntary Advanced Technology Incentives Program at the point where the wastewater containing those pollutants leaves the bleach plant. These limitations must be recalculated each time the NPDES permit of a discharger enrolled in the Voluntary Advanced Technology Incentives Program is reissued, up to:

(i) April 15, 2004 for all pollutants in paragraph (a)(1) of this section except AOX; and

(ii) The date specified in paragraph (b)(4)(ii) of this section for achieving

the applicable AOX limitation specified in paragraph (b)(4)(i).

(2) Best Professional Judgment Milestones: Narrative or numeric limitations and/or special permit conditions, as appropriate, established by the permitting authority on the basis of his or her best professional judgment that reflect reasonable interim milestones toward achievement of the effluent limitations specified in paragraphs (b)(3) and (b)(4) of this section, as applicable, after consideration of the Milestones Plan submitted by the discharger in accordance with paragraph (c) of this section.

(3) Six-year Milestones: By April 15, 2004 all dischargers enrolled in the Voluntary Advanced Technology Incentives Program must achieve the following:

(i) The effluent limitations specified in paragraph (a)(1) of this section, except that, with respect to AOX, dischargers subject to Tier I effluent limitations specified in paragraph (b)(4)(i) of this section must achieve the AOX limitation specified in that paragraph; or

(ii) For dischargers that use exclusively TCF bleaching processes as of April 15, 2004, the effluent limitations specified in paragraph (a)(2) of this section.

(4)(i) Stage 2 Limitations:

ULTIMATE VOLUNTARY ADVANCED TECHNOLOGY INCENTIVES PROGRAM BAT LIMITATIONS

Tier	Kappa number (annual average)	Filtrate recycling	Total pulping area condensate, evaporator condensate, and bleach plant wastewater flow (annual average)	AOX (kg/kkg)			
				Non-TCF <sup>a</sup>		TCF	
				Maximum for any 1 day	Annual average	Maximum for any 1 day	Annual average
Tier I ...	20 (softwood furnish) ... 13 (Hardwood furnish)	(b) .....	N/A .....	0.58	0.26	<ML <sup>c</sup>	(d)
Tier II ...	NA .....	(b) .....	10 cubic meters/kkg .....	0.23	0.10	<ML <sup>c</sup>	(d)
Tier III	N/A .....	(b) .....	5 cubic meters/kkg .....	0.11	0.05	<ML <sup>c</sup>	(d)

<sup>a</sup> Non-TCF: Pertains to any fiber line that does not use exclusively TCF bleaching processes.

<sup>b</sup> Complete recycling to the chemical recovery system of all filtrates generated prior to bleaching. Under Tier I, this includes all filtrates up to the point where kappa number is measured.

<sup>c</sup> <ML" means less than the minimum level specified in § 430.01(i) for the particular pollutant.

<sup>d</sup> This regulation does not specify this type of limitation for this pollutant; however, permitting authorities may do so as appropriate.

N/A means "not applicable."

(ii) Deadlines.

(A) A discharger enrolled in Tier I of the Voluntary Advanced Technology

Incentives Program must achieve the Tier I limitations in paragraph (b)(4)(i) of this section by April 15, 2004.

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(B) A discharger enrolled in Tier II of the Voluntary Advanced Technology Incentives Program must achieve the Tier II limitations in paragraph (b)(4)(i) of this section by April 15, 2009.

(C) A discharger enrolled in Tier III of the Voluntary Advanced Technology Incentives Program must achieve the Tier III limitations in paragraph (b)(4)(i) of this section by April 15, 2014.

(c) All dischargers enrolled or intending to enroll in the Voluntary Advanced Technology Incentives Program must submit to the NPDES permitting authority a Milestones Plan covering all fiber lines enrolled or intended to be enrolled in that program at their mill by October 5, 1999 or the date the discharger applies for an NPDES permit containing limitations and conditions based on paragraph (b) of this section, whichever is later. Mills may claim all or part of the Milestones Plan as confidential business information (CBI) in accordance with 40 CFR part 2 and 40 CFR 122.7. If a mill claims all or part of the plan as CBI, the mill must prepare and submit to the NPDES permitting authority a summary of the plan for public release. The Milestones Plan must include the following information:

(1) A description of each anticipated new technology component or process modification that the discharger intends to implement in order to achieve the limitations in paragraphs (b)(3) and (b)(4) of this section;

(2) A master schedule showing the sequence of implementing the new technology components or process modifications and identifying critical path relationships within the sequence;

(3) A schedule for each individual new technology component or process modification that includes:

(i) The anticipated initiation and completion dates of construction, installation and operational "shake-

down" period associated with the technology components or process modifications and, when applicable, the anticipated dates of initiation and completion of associated research, process development, and mill trials;

(ii) The anticipated dates that the discharger expects the technologies and process modifications selected to achieve the limitations specified in paragraphs (b)(3) and (b)(4) of this section to be operational on a full-scale basis; and

(iii) The anticipated magnitude of reductions in effluent quantity and the anticipated improvements in effluent quality associated with each technology and process modification implemented as measured at the bleach plant (for bleach plant, pulping area and evaporator condensates flow and BAT parameters other than Adsorbable Organic Halides (AOX)) and at the end of the pipe (for AOX), and the dates the discharger expects those reductions and improvements to be achieved;

(4) Contingency plans in the event that any technology or process specified in the Milestones Plan need to be adjusted or alternative approaches developed to ensure that the limitations specified in paragraphs (b)(3) and (b)(4) of this section are met; and

(5) A signature by the responsible corporate officer as defined in 40 CFR 122.22.

(d) The following additional effluent limitations apply to all dischargers subject to this section in accordance with the previous subcategorization scheme unless the discharger certifies to the permitting authority that it is not using these compounds as biocides. Also, for non-continuous dischargers, concentration limitations (mg/l) shall apply. Concentration limitations will only apply to non-continuous dischargers:

SUBPART B

[Supplemental BAT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant property	Maximum for any 1 day	
	kg/kg (or pounds per 1,000 lb) of product	Milligrams/liter
Pentachlorophenol .....	0.0019	(0.011)(41.6)/y



Environmental Protection Agency

§ 430.25

SUBPART B—Continued

[Supplemental BAT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant property	Maximum for any 1 day	
	kg/kg (or pounds per 1,000 lb) of product	Milligrams/liter
Trichlorophenol ..... y = wastewater discharged in kgal per ton product.	0.012	(0.068)(41.6)/y

SUBPART B

[Supplemental BAT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant property	Maximum for any 1 day	
	kg/kg (or pounds per 1,000 lb) of product	Milligrams/liter
Pentachlorophenol .....	0.0016	(0.11)(35.4)/y
Trichlorophenol .....	0.010	(0.068)(35.4)/y
y = wastewater discharged in kgal per ton of product.		

SUBPART B

[Supplemental BAT effluent limitations for bleached kraft facilities where pulp and fine papers are produced and soda facilities where pulp and paper are produced]

Pollutant or pollutant property	Maximum for any 1 day	
	kg/kg (or pounds per 1,000 lb) of product	Milligrams/liter
Pentachlorophenol .....	0.0014	(0.011) (30.9)/y
Trichlorophenol .....	0.0088	(0.068) (30.9)/y
y = wastewater discharged in kgal per ton of product.		

(e) Pursuant to 40 CFR 122.44(i) and 122.45(h), a discharger must demonstrate compliance with the effluent limitations in paragraph (a)(1) or (b)(3) of this section, as applicable, by monitoring for all pollutants (except for AOX and COD) at the point where the wastewater containing those pollutants leaves the bleach plant. The permitting authority may impose effluent limitations and/or monitoring requirements on internal wastestreams for any other pollutants covered in this section as appropriate under 40 CFR 122.44(i) and 122.45(h). In addition, a discharger subject to a limitation on total pulping area condensate, evaporator condensate, and bleach plant wastewater flow under paragraph (b)(4)(i) of this section, for Tier II and Tier III, must demonstrate compliance with that limitation by establishing and maintaining flow measurement equip-

ment to monitor these flows at the point or points where they leave the pulping area, evaporator area, and bleach plant.

[63 FR 18635, Apr. 15, 1998; 63 FR 42239, Aug. 7, 1998, as amended at 64 FR 36586, July 7, 1999]

**§ 430.25 New source performance standards (NSPS).**

New sources subject to this subpart must achieve the following new source performance standards (NSPS), as applicable.

(a) The following standards apply to each new source that commenced discharge after June 15, 1988 and before June 15, 1998, provided that the new source was constructed to meet these standards:

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## §430.24 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) Except as provided in paragraph (b) of this section—

(1) The following effluent limitations apply with respect to each fiber line that does not use an exclusively TCF bleaching process, as disclosed by the discharger in its NPDES permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22:

**Subpart B**

40CFR 430.24(a)(1)

Pollutant or pollutant property	BAT effluent limitations	
	Maximum for any 1 day	Monthly average
TCDD	<ML <sup>a</sup>	( <sup>b</sup> )
TCDF	31.9 <sup>c</sup>	( <sup>b</sup> )
Chloroform	6.92 <sup>d</sup>	4.14( <sup>d</sup> )
Trichlorosyringol	<ML <sup>a</sup>	( <sup>b</sup> )
3,4,5-trichlorocatechol	<ML <sup>a</sup>	( <sup>b</sup> )
3,4,6-trichlorocatechol	<ML <sup>a</sup>	( <sup>b</sup> )
3,4,5-trichloroguaiacol	<ML <sup>a</sup>	( <sup>b</sup> )
3,4,6-trichloroguaiacol	<ML <sup>a</sup>	( <sup>b</sup> )
4,5,6-trichloroguaiacol	<ML <sup>a</sup>	( <sup>b</sup> )
2,4,5-trichlorophenol	<ML <sup>a</sup>	( <sup>b</sup> )
2,4,6-trichlorophenol	<ML <sup>a</sup>	( <sup>b</sup> )
Tetrachlorocatechol	<ML <sup>a</sup>	( <sup>b</sup> )
Tetrachloroguaiacol	<ML <sup>a</sup>	( <sup>b</sup> )
2,3,4,6-tetrachlorophenol	<ML <sup>a</sup>	( <sup>b</sup> )
Pentachlorophenol	<ML <sup>a</sup>	( <sup>b</sup> )

d = grams per 1000 kilograms (g/kg)

## § 430.02

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CAS number	Pollutant	Minimum monitoring frequency		
		Non-ECF <sup>a</sup>	Advanced ECF <sup>b,i</sup>	TCF <sup>c</sup>
2539175 .....	Tetrachloroguaiacol .....	Monthly .....	Monthly .....	( <sup>d</sup> )
2539266 .....	Trichlorosyringol .....	Monthly .....	Monthly .....	( <sup>d</sup> )
2668248 .....	4,5,6-trichloroguaiacol .....	Monthly .....	Monthly .....	( <sup>d</sup> )
32139723 .....	3,4,6-trichlorocatechol .....	Monthly .....	Monthly .....	( <sup>d</sup> )
56961207 .....	3,4,5-trichlorocatechol .....	Monthly .....	Monthly .....	( <sup>d</sup> )
57057837 .....	3,4,5-trichloroguaiacol .....	Monthly .....	Monthly .....	( <sup>d</sup> )
58902 .....	2,3,4,6-tetrachlorophenol .....	Monthly .....	Monthly .....	( <sup>d</sup> )
60712449 .....	3,4,6-trichloroguaiacol .....	Monthly .....	Monthly .....	( <sup>d</sup> )
87865 .....	Pentachlorophenol <sup>e</sup> .....	Monthly .....	Monthly .....	( <sup>d</sup> )
88062 .....	2,4,6-trichlorophenol <sup>e</sup> .....	Monthly .....	Monthly .....	( <sup>d</sup> )
95954 .....	2,4,5-trichlorophenol <sup>e</sup> .....	Monthly .....	Monthly .....	( <sup>d</sup> )
1746016 .....	2,3,7,8-TCDD .....	Monthly .....	Monthly .....	( <sup>d</sup> )
51207319 .....	2,3,7,8-TCDF .....	Monthly .....	Monthly .....	( <sup>d</sup> )
67663 .....	Chloroform .....	Weekly .....	Monthly .....	( <sup>d</sup> )

<sup>a</sup> Non-ECF: Pertains to any fiber line that does not use exclusively ECF or TCF bleaching processes.

<sup>b</sup> Advanced ECF: Pertains to any fiber line that uses exclusively Advanced ECF bleaching processes, or exclusively ECF and TCF bleaching processes as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22. Advanced ECF consists of the use of extended delignification or other technologies that achieve at least the Tier I performance levels specified in § 430.24(b)(4)(i).

<sup>c</sup> TCF: Pertains to any fiber line that uses exclusively TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22.

<sup>d</sup> This regulation does not specify a limit for this pollutant for TCF bleaching processes.

<sup>e</sup> Monitoring frequency does not apply to this compound when used as a biocide. The permitting authority must determine the appropriate monitoring frequency for this compound, when used as a biocide, under 40 CFR 122.44(j).

Monitoring requirements for these pollutants by mills certifying as Advanced ECF in their NPDES permit application or other communication to the permitting authority will be suspended after one year of monitoring. The permitting authority must determine the appropriate monitoring frequency for these pollutants beyond that time under 40 CFR 122.44(j).

(d) *Reduced monitoring frequencies for AOX under the Voluntary Advanced Technology Incentives Program (year one).* The following monitoring frequencies apply to direct dischargers enrolled in the Voluntary Advanced

Technology Incentives Program established under Subpart B of this part for a duration of one year after achievement of the applicable BAT limitations specified in § 430.24(b)(4)(i) or NSPS specified in § 430.25(c)(2):

CAS number	Pollutant	Non-ECF, any tier <sup>a</sup>	Advanced ECF, any tier <sup>b</sup>	TCF, any tier <sup>c</sup>
59473040 .....	AOX .....	Daily .....	Weekly .....	None specified.

<sup>a</sup> Non-ECF: Pertains to any fiber line that does not use exclusively ECF or TCF bleaching processes.

<sup>b</sup> Advanced ECF: Pertains to any fiber line that uses exclusively Advanced ECF bleaching processes or exclusively ECF and TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22. Advanced ECF consists of the use of extended delignification or other technologies that achieve at least the Tier I performance levels specified in § 430.24(b)(4)(i).

<sup>c</sup> TCF: Pertains to any fiber line that uses exclusively TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22.

(e) *Reduced monitoring frequencies for AOX under the Voluntary Advanced Technology Incentives Program (years two through five).* The following monitoring frequencies apply to mills enrolled in the Voluntary Advanced Technology Incentives Program estab-

lished under Subpart B of this part for a duration of four years starting one year after achievement of the applicable BAT limitations specified in § 430.24(b)(4)(i) or NSPS specified in § 430.25(c)(2):

CAS number	Pollutant	Non-ECF any tier <sup>a</sup>	Advanced ECF—tier I <sup>b</sup>	Advanced ECF—tier II <sup>b</sup>	Advanced ECF—tier III <sup>b</sup>	TCF—any tier <sup>c</sup>
59473040 ....	AOX .....	Daily .....	Monthly .....	Quarterly .....	Annually .....	None specified.

<sup>a</sup> Non-ECF: Pertains to any fiber line that does not use exclusively ECF or TCF bleaching processes.

<sup>b</sup> Advanced ECF: Pertains to any fiber line that uses exclusively Advanced ECF bleaching processes or exclusively ECF and TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22. Advanced ECF consists of the use of extended delignification or other technologies that achieve at least the Tier I performance levels specified in § 430.24(b)(4)(i).

<sup>c</sup> TCF: Pertains to any fiber line that uses exclusively TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22.

TABLE 4C  
INDUSTRIAL WASTEWATER DISCHARGERS TO BLACKWATER RIVER SUB-BASIN

DISCHARGER	RECEIVING STREAM	TREATMENT	ACTUAL FLOW (MGD)	PRESENT		
				AVERAGE BOD <sub>5</sub>	MAXIMUM BOD <sub>5</sub>	AVERAGE TSS
Union Camp Bleach Paper (001)	Blackwater River	Clarification, Aeration and Holding Ponds	16x10 <sup>9</sup> gal/yr		4.4 x 10 <sup>6</sup> #/Yr	2.88 x 10 <sup>6</sup> #/Yr
Union Camp Building Products (001)	Blackwater River	None	.115	No Limits		
Regis Paper Company	Trib. to Blackwater River	None	.05	No Limits		
Union Camp Bleach Paper (002)	Blackwater River	None	.72	No Limits		
Masonite Corporation #1	Spring Branch	Settling Box	.002	1.2 #/D	2.4 #/D	.95 #/D
Masonite Corporation #2	Spring Branch	None	.002	1.7 #/D	3.4 #/D	2.1 #/D
DESCO to Steven Kent	Woody's Pond	None	N/A*	N/A	N/A	N/A
Spurlock (001)	Spring Branch	Holding Pond w/ Aeration	Periodic Discharge			
Spurlock (002)	Spring Branch	Cooling Water Discharge	.197			

Attachment 6

[illegible]

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmmin	Lim-Min	cavg	Lim-Avg	cmmax	Lim-Max
VA00004162	10-Feb-13	001	001	FLOW	125	NL	185	NL	-	*****	-	*****	-	*****
VA00004162	10-Mar-13	001	001	FLOW	90	NL	153	NL	-	*****	-	*****	-	*****
VA00004162	10-Apr-13	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****
VA00004162	10-Dec-13	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****
VA00004162	10-Jan-14	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****
VA00004162	10-Feb-14	001	001	FLOW	112	NL	156	NL	-	*****	-	*****	-	*****
VA00004162	10-Mar-14	001	001	FLOW	97	NL	142	NL	-	*****	-	*****	-	*****
VA00004162	10-Apr-14	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****
VA00004162	10-Dec-14	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****
VA00004162	10-Jan-15	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****
VA00004162	10-Feb-15	001	001	FLOW	134	NL	181	NL	-	*****	-	*****	-	*****
VA00004162	10-Mar-15	001	001	FLOW	58	NL	112	NL	-	*****	-	*****	-	*****
VA00004162	10-Apr-15	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****
VA00004162	10-Dec-15	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****
VA00004162	10-Jan-10	001	002	pH	-	*****	-	*****	7.3	6.0	-	*****	7.4	9.0
VA00004162	10-Feb-10	001	002	pH	-	*****	-	*****	7.3	6.0	-	*****	7.7	9.0
VA00004162	10-Mar-10	001	002	pH	-	*****	-	*****	7.5	6.0	-	*****	7.9	9.0
VA00004162	10-Apr-10	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmn	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Dec-10	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Jan-11	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Feb-11	001	002	pH	-	*****	-	*****	8.4	6.0	-	*****	8.6	9.0
VA0004162	10-Mar-11	001	002	pH	-	*****	-	*****	7.9	6.0	-	*****	8.4	9.0
VA0004162	10-Apr-11	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Dec-11	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Jan-12	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Feb-12	001	002	pH	-	*****	-	*****	7.8	6.0	-	*****	8.4	9.0
VA0004162	10-Mar-12	001	002	pH	-	*****	-	*****	7.9	6.0	-	*****	8.0	9.0
VA0004162	10-Apr-12	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Dec-12	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Jan-13	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Feb-13	001	002	pH	-	*****	-	*****	7.2	6.0	-	*****	8.2	9.0
VA0004162	10-Mar-13	001	002	pH	-	*****	-	*****	7.8	6.0	-	*****	8.0	9.0
VA0004162	10-Apr-13	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Dec-13	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Jan-14	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Feb-14	001	002	pH	-	*****	-	*****	7.9	6.0	-	*****	8.1	9.0

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmn	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Mar-14	001	002	pH	-	*****	-	*****	7.4	6.0	-	*****	8.0	9.0
VA0004162	10-Apr-14	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Dec-14	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Jan-15	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Feb-15	001	002	pH	-	*****	-	*****	7.8	6.0	-	*****	8.0	9.0
VA0004162	10-Mar-15	001	002	pH	-	*****	-	*****	6.9	6.0	-	*****	7.9	9.0
VA0004162	10-Apr-15	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Dec-15	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0
VA0004162	10-Jan-10	001	008	COD	-	*****	-	*****	-	*****	154	NL	178	NL
VA0004162	10-Feb-10	001	008	COD	-	*****	-	*****	-	*****	160	NL	166	NL
VA0004162	10-Mar-10	001	008	COD	-	*****	-	*****	-	*****	158	NL	166	NL
VA0004162	10-Apr-10	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-10	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-11	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-11	001	008	COD	-	*****	-	*****	-	*****	82	NL	84	NL
VA0004162	10-Mar-11	001	008	COD	-	*****	-	*****	-	*****	84	NL	97	NL
VA0004162	10-Apr-11	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-11	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL



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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Jan-12	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-12	001	008	COD	-	*****	-	*****	-	*****	68	NL	75	NL
VA0004162	10-Mar-12	001	008	COD	-	*****	-	*****	-	*****	68	NL	71	NL
VA0004162	10-Apr-12	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-12	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-13	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-13	001	008	COD	-	*****	-	*****	-	*****	204	NL	252	NL
VA0004162	10-Mar-13	001	008	COD	-	*****	-	*****	-	*****	236	NL	238	NL
VA0004162	10-Apr-13	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-13	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-14	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-14	001	008	COD	-	*****	-	*****	-	*****	204	NL	213	NL
VA0004162	10-Mar-14	001	008	COD	-	*****	-	*****	-	*****	230	NL	237	NL
VA0004162	10-Apr-14	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-14	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-15	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-15	001	008	COD	-	*****	-	*****	-	*****	232	NL	244	NL
VA0004162	10-Mar-15	001	008	COD	-	*****	-	*****	-	*****	258	NL	272	NL

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Permit No	Due Date	outfall	pram	Parameter Description	gavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Apr-15 001		008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-15 001		008	COD	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-10 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.0	2	1.1	NL
VA0004162	10-Feb-10 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.04	2	1.06	NL
VA0004162	10-Mar-10 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.89	2	0.97	NL
VA0004162	10-Apr-10 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA0004162	10-Dec-10 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA0004162	10-Jan-11 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA0004162	10-Feb-11 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.2	2	1.24	NL
VA0004162	10-Mar-11 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.19	2	1.23	NL
VA0004162	10-Apr-11 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA0004162	10-Dec-11 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA0004162	10-Jan-12 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA0004162	10-Feb-12 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.72	2	0.73	NL
VA0004162	10-Mar-12 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.51	2	0.79	NL
VA0004162	10-Apr-12 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA0004162	10-Dec-12 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA0004162	10-Jan-13 001		012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL

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Permit No	Due Date	outfall	pram	Parameter Description	gavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA00004162	10-Feb-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.83	2	0.85	NL
VA00004162	10-Mar-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.78	2	0.81	NL
VA00004162	10-Apr-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA00004162	10-Dec-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA00004162	10-Jan-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA00004162	10-Feb-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.02	2	1.09	NL
VA00004162	10-Mar-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.96	2	1.06	NL
VA00004162	10-Apr-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA00004162	10-Dec-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA00004162	10-Jan-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA00004162	10-Feb-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.40	2	1.45	NL
VA00004162	10-Mar-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.37	2	1.40	NL
VA00004162	10-Apr-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA00004162	10-Dec-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL
VA00004162	10-Jan-10	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	2.30	NL	2.90	NL
VA00004162	10-Feb-10	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	2.41	NL	2.51	NL
VA00004162	10-Mar-10	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	3.1	NL	4.0	NL
VA00004162	10-Apr-10	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmn	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Dec-10	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-11	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-11	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	3.2	NL	3.6	NL
VA0004162	10-Mar-11	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	3.2	NL	4.0	NL
VA0004162	10-Apr-11	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-11	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-12	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-12	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	3.0	NL	3.4	NL
VA0004162	10-Mar-12	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	3.2	NL	3.9	NL
VA0004162	10-Apr-12	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-12	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-13	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-13	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	2.0	NL	2.7	NL
VA0004162	10-Mar-13	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	1.8	NL	1.9	NL
VA0004162	10-Apr-13	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-13	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-14	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-14	001	013	NITROGEN, TOTAL (AS-	-	*****	-	*****	-	*****	2.80	NL	3.60	NL

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmn	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Mar-14	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	2.3	NL	2.6	NL
VA0004162	10-Apr-14	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-14	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Feb-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	2.48	NL	3.00	NL
VA0004162	10-Mar-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	3.05	NL	4.50	NL
VA0004162	10-Apr-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Dec-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL
VA0004162	10-Jan-10	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	0.27	2.15	0.55	3.19
VA0004162	10-Feb-10	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	0.25	2.15	0.28	3.19
VA0004162	10-Mar-10	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	0.35	2.15	0.45	3.19
VA0004162	10-Apr-10	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Dec-10	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Jan-11	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Feb-11	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	0.33	2.15	0.54	3.19
VA0004162	10-Mar-11	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	0.51	2.15	0.99	3.19
VA0004162	10-Apr-11	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Dec-11	001	305	AMMONIA, AS N NOV	-	*****	-	*****	-	*****	-	2.15	-	3.19

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Jan-12	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Feb-12	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	0.65	2.15	1.11	3.19
VA0004162	10-Mar-12	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	0.27	2.15	0.36	3.19
VA0004162	10-Apr-12	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Dec-12	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Jan-13	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Feb-13	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	0.16	2.15	0.39	3.19
VA0004162	10-Mar-13	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	0.05	2.15	0.11	3.19
VA0004162	10-Apr-13	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Dec-13	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Jan-14	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Feb-14	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	0.43	2.15	0.89	3.19
VA0004162	10-Mar-14	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	<QL	2.15	<QL	3.19
VA0004162	10-Apr-14	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Dec-14	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Jan-15	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Feb-15	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	0.60	2.15	1.08	3.19
VA0004162	10-Mar-15	001	305	AMMONIA, AS N NOV:-	-	*****	-	*****	-	*****	0.27	2.15	0.37	3.19

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Apr-15	001	305	AMMONIA, AS N NOV.-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Dec-15	001	305	AMMONIA, AS N NOV.-	-	*****	-	*****	-	*****	-	2.15	-	3.19
VA0004162	10-Jan-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12
VA0004162	10-Feb-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12
VA0004162	10-Mar-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12
VA0004162	10-Apr-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Dec-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Jan-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Feb-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12
VA0004162	10-Mar-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12
VA0004162	10-Apr-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Dec-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Jan-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Feb-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12
VA0004162	10-Mar-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12
VA0004162	10-Apr-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Dec-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Jan-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Feb-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12
VA0004162	10-Mar-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12
VA0004162	10-Apr-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Dec-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Jan-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Feb-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12
VA0004162	10-Mar-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12
VA0004162	10-Apr-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Dec-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Jan-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Feb-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12
VA0004162	10-Mar-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12
VA0004162	10-Apr-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Dec-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12
VA0004162	10-Jan-10	001	307	2,3,7,8-TETRACHLORO	-	*****	-	*****	-	*****	-	*****	NR	NL
VA0004162	10-Feb-10	001	307	2,3,7,8-TETRACHLORO	-	*****	-	*****	-	*****	-	*****	NR	NL
VA0004162	10-Mar-10	001	307	2,3,7,8-TETRACHLORO	-	*****	-	*****	-	*****	-	*****	<QL	NL
VA0004162	10-Apr-10	001	307	2,3,7,8-TETRACHLORO	-	*****	-	*****	-	*****	-	*****	-	NL

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Permit No	Due Date	outfall	pram	Parameter Description	gavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Dec-10	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Jan-11	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Feb-11	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	NR	NL
VA0004162	10-Mar-11	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	<QL	NL
VA0004162	10-Apr-11	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Dec-11	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Jan-12	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Feb-12	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	NR	NL
VA0004162	10-Mar-12	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	<QL	NL
VA0004162	10-Apr-12	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Dec-12	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Jan-13	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Feb-13	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	NR	NL
VA0004162	10-Mar-13	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	<QL	NL
VA0004162	10-Apr-13	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Dec-13	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Jan-14	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Feb-14	001	307	2,3,7,8-TETRACHLORC-		*****	-	*****	-	*****	-	*****	NR	NL

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmn	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Mar-14	001	307	2,3,7,8-TETRACHLORC-	-	*****	-	*****	-	*****	-	*****	<QL	NL
VA0004162	10-Apr-14	001	307	2,3,7,8-TETRACHLORC-	-	*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Dec-14	001	307	2,3,7,8-TETRACHLORC-	-	*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Jan-15	001	307	2,3,7,8-TETRACHLORC-	-	*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Feb-15	001	307	2,3,7,8-TETRACHLORC-	-	*****	-	*****	-	*****	-	*****	NR	NL
VA0004162	10-Mar-15	001	307	2,3,7,8-TETRACHLORC-	-	*****	-	*****	-	*****	-	*****	<QL	NL
VA0004162	10-Apr-15	001	307	2,3,7,8-TETRACHLORC-	-	*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Dec-15	001	307	2,3,7,8-TETRACHLORC-	-	*****	-	*****	-	*****	-	*****	-	NL
VA0004162	10-Jan-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	5	79	12	158
VA0004162	10-Feb-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	9	79	13	158
VA0004162	10-Mar-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	8	79	9	158
VA0004162	10-Apr-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158
VA0004162	10-Dec-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158
VA0004162	10-Jan-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158
VA0004162	10-Feb-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	<QL	79	<QL	158
VA0004162	10-Mar-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	2	79	7	158
VA0004162	10-Apr-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158
VA0004162	10-Dec-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Jan-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158
VA0004162	10-Feb-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	<QL	79	<QL	158
VA0004162	10-Mar-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	3	79	8	158
VA0004162	10-Apr-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158
VA0004162	10-Dec-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Jan-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Feb-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	2	127	9	254
VA0004162	10-Mar-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	6	127	7	254
VA0004162	10-Apr-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Dec-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Jan-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Feb-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	2	127	6	254
VA0004162	10-Mar-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	16	127	23	254
VA0004162	10-Apr-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Dec-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Jan-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Feb-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	4	127	9	254
VA0004162	10-Mar-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	7	127	8	254

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Apr-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Dec-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254
VA0004162	10-Jan-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	7	153	16.8	306
VA0004162	10-Feb-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	9.7	153	11.9	306
VA0004162	10-Mar-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	13	153	18	306
VA0004162	10-Apr-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306
VA0004162	10-Dec-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306
VA0004162	10-Jan-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306
VA0004162	10-Feb-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	5.9	153	8.2	306
VA0004162	10-Mar-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	6.6	153	8.4	306
VA0004162	10-Apr-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306
VA0004162	10-Dec-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306
VA0004162	10-Jan-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306
VA0004162	10-Feb-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	4.3	153	6.0	306
VA0004162	10-Mar-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	51	153	146	306
VA0004162	10-Apr-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306
VA0004162	10-Dec-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Jan-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Feb-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	5.4	261	7.4	522
VA0004162	10-Mar-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	8	261	9	522
VA0004162	10-Apr-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Dec-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Jan-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Feb-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	6.2	261	7.5	522
VA0004162	10-Mar-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	16	261	20	522
VA0004162	10-Apr-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Dec-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Jan-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Feb-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	5.7	261	8.7	522
VA0004162	10-Mar-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	12	261	17	522
VA0004162	10-Apr-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Dec-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522
VA0004162	10-Jan-10	001	633	BOD5 **6	-	*****	0.13	4.4	-	*****	-	*****	-	*****
VA0004162	10-Feb-10	001	633	BOD5 **6	-	*****	0.40	4.4	-	*****	-	*****	-	*****
VA0004162	10-Mar-10	001	633	BOD5 **6	-	*****	0.505	4.4	-	*****	-	*****	-	*****
VA0004162	10-Apr-10	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Dec-10	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Jan-11	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Feb-11	001	633	BOD5 **6	-	*****	0	4.4	-	*****	-	*****	-	*****
VA0004162	10-Mar-11	001	633	BOD5 **6	-	*****	0.008	4.4	-	*****	-	*****	-	*****
VA0004162	10-Apr-11	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Dec-11	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Jan-12	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Feb-12	001	633	BOD5 **6	-	*****	0	4.4	-	*****	-	*****	-	*****
VA0004162	10-Mar-12	001	633	BOD5 **6	-	*****	0.010	4.4	-	*****	-	*****	-	*****
VA0004162	10-Apr-12	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Dec-12	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Jan-13	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Feb-13	001	633	BOD5 **6	-	*****	0.04	4.4	-	*****	-	*****	-	*****
VA0004162	10-Mar-13	001	633	BOD5 **6	-	*****	0.11	4.4	-	*****	-	*****	-	*****
VA0004162	10-Apr-13	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Dec-13	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Jan-14	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Feb-14	001	633	BOD5 **6	-	*****	0.04	4.4	-	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	gmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Mar-14	001	633	BOD5 **6	-	*****	0.26	4.4	-	*****	-	*****	-	*****
VA0004162	10-Apr-14	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Dec-14	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Jan-15	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Feb-15	001	633	BOD5 **6	-	*****	0.11	4.4	-	*****	-	*****	-	*****
VA0004162	10-Mar-15	001	633	BOD5 **6	-	*****	0.19	4.4	-	*****	-	*****	-	*****
VA0004162	10-Apr-15	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Dec-15	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****
VA0004162	10-Jan-10	001	634	TSS **6	-	*****	0.23	2.88	-	*****	-	*****	-	*****
VA0004162	10-Feb-10	001	634	TSS **6	-	*****	0.53	2.88	-	*****	-	*****	-	*****
VA0004162	10-Mar-10	001	634	TSS **6	-	*****	0.675	2.88	-	*****	-	*****	-	*****
VA0004162	10-Apr-10	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Dec-10	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Jan-11	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Feb-11	001	634	TSS **6	-	*****	0.03	2.88	-	*****	-	*****	-	*****
VA0004162	10-Mar-11	001	634	TSS **6	-	*****	0.08	2.88	-	*****	-	*****	-	*****
VA0004162	10-Apr-11	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Dec-11	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Jan-12 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Feb-12 001		634	TSS **6	-	*****	0.02	2.88	-	*****	-	*****	-	*****
VA0004162	10-Mar-12 001		634	TSS **6	-	*****	0.21	2.88	-	*****	-	*****	-	*****
VA0004162	10-Apr-12 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Dec-12 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Jan-13 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Feb-13 001		634	TSS **6	-	*****	0.14	2.88	-	*****	-	*****	-	*****
VA0004162	10-Mar-13 001		634	TSS **6	-	*****	0.21	2.88	-	*****	-	*****	-	*****
VA0004162	10-Apr-13 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Dec-13 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Jan-14 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Feb-14 001		634	TSS **6	-	*****	0.15	2.88	-	*****	-	*****	-	*****
VA0004162	10-Mar-14 001		634	TSS **6	-	*****	0.35	2.88	-	*****	-	*****	-	*****
VA0004162	10-Apr-14 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Dec-14 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Jan-15 001		634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Feb-15 001		634	TSS **6	-	*****	0.17	2.88	-	*****	-	*****	-	*****
VA0004162	10-Mar-15 001		634	TSS **6	-	*****	0.29	2.88	-	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmn	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Apr-15	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Dec-15	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****
VA0004162	10-Jan-10	001	635	AMMONIA AS N **6	0.01	0.22	0.01	0.32	-	*****	-	*****	-	*****
VA0004162	10-Feb-10	001	635	AMMONIA AS N **6	0.007	0.22	0.018	0.32	-	*****	-	*****	-	*****
VA0004162	10-Mar-10	001	635	AMMONIA AS N **6	0.004	0.22	0.022	0.32	-	*****	-	*****	-	*****
VA0004162	10-Apr-10	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Dec-10	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Jan-11	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Feb-11	001	635	AMMONIA AS N **6	0.002	0.22	0.002	0.32	-	*****	-	*****	-	*****
VA0004162	10-Mar-11	001	635	AMMONIA AS N **6	0.003	0.22	0.005	0.32	-	*****	-	*****	-	*****
VA0004162	10-Apr-11	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Dec-11	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Jan-12	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Feb-12	001	635	AMMONIA AS N **6	0.004	0.22	0.004	0.32	-	*****	-	*****	-	*****
VA0004162	10-Mar-12	001	635	AMMONIA AS N **6	0.001	0.22	0.006	0.32	-	*****	-	*****	-	*****
VA0004162	10-Apr-12	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Dec-12	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Jan-13	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Feb-13	001	635	AMMONIA AS N **6	0.005	0.22	0.005	0.32	-	*****	-	*****	-	*****
VA0004162	10-Mar-13	001	635	AMMONIA AS N **6	0.0002	0.22	0.005	0.32	-	*****	-	*****	-	*****
VA0004162	10-Apr-13	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Dec-13	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Jan-14	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Feb-14	001	635	AMMONIA AS N **6	0.009	0.22	0.009	0.32	-	*****	-	*****	-	*****
VA0004162	10-Mar-14	001	635	AMMONIA AS N **6	0.0	0.22	0.01	0.32	-	*****	-	*****	-	*****
VA0004162	10-Apr-14	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Dec-14	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Jan-15	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Feb-15	001	635	AMMONIA AS N **6	0.02	0.22	0.02	0.32	-	*****	-	*****	-	*****
VA0004162	10-Mar-15	001	635	AMMONIA AS N **6	0.002	0.22	0.022	0.32	-	*****	-	*****	-	*****
VA0004162	10-Apr-15	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Dec-15	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****
VA0004162	10-Jan-10	001	636	PHOSPHORUS, TOTAL	-	*****	0.03	0.2	-	*****	-	*****	-	*****
VA0004162	10-Feb-10	001	636	PHOSPHORUS, TOTAL	-	*****	0.066	0.2	-	*****	-	*****	-	*****
VA0004162	10-Mar-10	001	636	PHOSPHORUS, TOTAL	-	*****	0.077	0.2	-	*****	-	*****	-	*****
VA0004162	10-Apr-10	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Dec-10	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Jan-11	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Feb-11	001	636	PHOSPHORUS, TOTAL	-	*****	0.007	0.2	-	*****	-	*****	-	*****
VA0004162	10-Mar-11	001	636	PHOSPHORUS, TOTAL	-	*****	0.015	0.2	-	*****	-	*****	-	*****
VA0004162	10-Apr-11	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Dec-11	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Jan-12	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Feb-12	001	636	PHOSPHORUS, TOTAL	-	*****	0.004	0.2	-	*****	-	*****	-	*****
VA0004162	10-Mar-12	001	636	PHOSPHORUS, TOTAL	-	*****	0.007	0.2	-	*****	-	*****	-	*****
VA0004162	10-Apr-12	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Dec-12	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Jan-13	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Feb-13	001	636	PHOSPHORUS, TOTAL	-	*****	0.02	0.2	-	*****	-	*****	-	*****
VA0004162	10-Mar-13	001	636	PHOSPHORUS, TOTAL	-	*****	0.03	0.2	-	*****	-	*****	-	*****
VA0004162	10-Apr-13	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Dec-13	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Jan-14	001	636	PHOSPHORUS, TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Feb-14	001	636	PHOSPHORUS, TOTAL	-	*****	0.025	0.2	-	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Mar-14	001	636	PHOSPHORUS,TOTAL	-	*****	0.04	0.2	-	*****	-	*****	-	*****
VA0004162	10-Apr-14	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Dec-14	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Jan-15	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Feb-15	001	636	PHOSPHORUS,TOTAL	-	*****	0.04	0.2	-	*****	-	*****	-	*****
VA0004162	10-Mar-15	001	636	PHOSPHORUS,TOTAL	-	*****	0.06	0.2	-	*****	-	*****	-	*****
VA0004162	10-Apr-15	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Dec-15	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****
VA0004162	10-Jan-10	001	637	2,3,7,8-TCDD **,-5	-	*****	NR	1.1	-	*****	-	*****	-	*****
VA0004162	10-Feb-10	001	637	2,3,7,8-TCDD **,-5	-	*****	NR	1.1	-	*****	-	*****	-	*****
VA0004162	10-Mar-10	001	637	2,3,7,8-TCDD **,-5	-	*****	0	1.1	-	*****	-	*****	-	*****
VA0004162	10-Apr-10	001	637	2,3,7,8-TCDD **,-5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Dec-10	001	637	2,3,7,8-TCDD **,-5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Jan-11	001	637	2,3,7,8-TCDD **,-5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Feb-11	001	637	2,3,7,8-TCDD **,-5	-	*****	NR	1.1	-	*****	-	*****	-	*****
VA0004162	10-Mar-11	001	637	2,3,7,8-TCDD **,-5	-	*****	0	1.1	-	*****	-	*****	-	*****
VA0004162	10-Apr-11	001	637	2,3,7,8-TCDD **,-5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Dec-11	001	637	2,3,7,8-TCDD **,-5	-	*****	-	1.1	-	*****	-	*****	-	*****

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Jan-12	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Feb-12	001	637	2,3,7,8-TCDD **5	-	*****	NR	1.1	-	*****	-	*****	-	*****
VA0004162	10-Mar-12	001	637	2,3,7,8-TCDD **5	-	*****	0	1.1	-	*****	-	*****	-	*****
VA0004162	10-Apr-12	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Dec-12	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Jan-13	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Feb-13	001	637	2,3,7,8-TCDD **5	-	*****	NR	1.1	-	*****	-	*****	-	*****
VA0004162	10-Mar-13	001	637	2,3,7,8-TCDD **5	-	*****	0	1.1	-	*****	-	*****	-	*****
VA0004162	10-Apr-13	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Dec-13	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Jan-14	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Feb-14	001	637	2,3,7,8-TCDD **5	-	*****	NR	1.1	-	*****	-	*****	-	*****
VA0004162	10-Mar-14	001	637	2,3,7,8-TCDD **5	-	*****	0	1.1	-	*****	-	*****	-	*****
VA0004162	10-Apr-14	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Dec-14	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Jan-15	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Feb-15	001	637	2,3,7,8-TCDD **5	-	*****	NR	1.1	-	*****	-	*****	-	*****
VA0004162	10-Mar-15	001	637	2,3,7,8-TCDD **5	-	*****	0	1.1	-	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Apr-15	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Dec-15	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****
VA0004162	10-Jan-10	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****
VA0004162	10-Feb-10	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****
VA0004162	10-Mar-10	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****
VA0004162	10-Apr-10	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Dec-10	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Jan-11	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Feb-11	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****
VA0004162	10-Mar-11	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****
VA0004162	10-Apr-11	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Dec-11	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Jan-12	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Feb-12	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****
VA0004162	10-Mar-12	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****
VA0004162	10-Apr-12	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Dec-12	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Jan-13	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Feb-13	001	638	2,3,7,8-TCDF **5	-	*****	NR	NL	-	*****	-	*****	-	*****
VA0004162	10-Mar-13	001	638	2,3,7,8-TCDF **5	-	*****	0	NL	-	*****	-	*****	-	*****
VA0004162	10-Apr-13	001	638	2,3,7,8-TCDF **5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Dec-13	001	638	2,3,7,8-TCDF **5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Jan-14	001	638	2,3,7,8-TCDF **5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Feb-14	001	638	2,3,7,8-TCDF **5	-	*****	NR	NL	-	*****	-	*****	-	*****
VA0004162	10-Mar-14	001	638	2,3,7,8-TCDF **5	-	*****	0	NL	-	*****	-	*****	-	*****
VA0004162	10-Apr-14	001	638	2,3,7,8-TCDF **5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Dec-14	001	638	2,3,7,8-TCDF **5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Jan-15	001	638	2,3,7,8-TCDF **5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Feb-15	001	638	2,3,7,8-TCDF **5	-	*****	NR	NL	-	*****	-	*****	-	*****
VA0004162	10-Mar-15	001	638	2,3,7,8-TCDF **5	-	*****	0	NL	-	*****	-	*****	-	*****
VA0004162	10-Apr-15	001	638	2,3,7,8-TCDF **5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Dec-15	001	638	2,3,7,8-TCDF **5	-	*****	-	NL	-	*****	-	*****	-	*****
VA0004162	10-Jan-10	001	737	AOX (Adsorbable Orga	18713	NL	18713	723000	-	*****	0.550	133	0.550	280
VA0004162	10-Feb-10	001	737	AOX (Adsorbable Orga	15756	NL	34468	723000	-	*****	0.537	133	0.537	280
VA0004162	10-Mar-10	001	737	AOX (Adsorbable Orga	6621	NL	41089	723000	-	*****	0.522	133	0.522	280
VA0004162	10-Apr-10	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Dec-10	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Jan-11	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Feb-11	001	737	AOX (Adsorbable Orga	898	NL	898	723000	-	*****	0.144	133	0.144	280
VA0004162	10-Mar-11	001	737	AOX (Adsorbable Orga	753	NL	1635	723000	-	*****	0.117	133	0.117	280
VA0004162	10-Apr-11	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Dec-11	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Jan-12	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Feb-12	001	737	AOX (Adsorbable Orga	427	NL	427	723000	-	*****	0.07	133	0.07	280
VA0004162	10-Mar-12	001	737	AOX (Adsorbable Orga	477	NL	904	723000	-	*****	0.096	133	0.096	280
VA0004162	10-Apr-12	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Dec-12	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Jan-13	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Feb-13	001	737	AOX (Adsorbable Orga	9655	NL	9655	723000	-	*****	0.370	133	0.370	280
VA0004162	10-Mar-13	001	737	AOX (Adsorbable Orga	3477	NL	13132	723000	-	*****	0.330	133	0.330	280
VA0004162	10-Apr-13	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Dec-13	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Jan-14	001	737	AOX (Adsorbable Orga-	-	NL	-	723000	-	*****	-	133	-	280
VA0004162	10-Feb-14	001	737	AOX (Adsorbable Orga	22229	NL	22229	723000	-	*****	0.911	133	0.911	280



Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg qmax	Lim-Max cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Mar-14	001	737	AOX (Adsorbable Orga	13523	NL	723000	*****	1.19	133	1.19	280
VA0004162	10-Apr-14	001	737	AOX (Adsorbable Orga	-	NL	723000	*****	-	133	-	280
VA0004162	10-Dec-14	001	737	AOX (Adsorbable Orga	-	NL	723000	*****	-	133	-	280
VA0004162	10-Jan-15	001	737	AOX (Adsorbable Orga	-	NL	723000	*****	-	133	-	280
VA0004162	10-Feb-15	001	737	AOX (Adsorbable Orga	34887	NL	723000	*****	1.1	133	1.3	280
VA0004162	10-Mar-15	001	737	AOX (Adsorbable Orga	9958	NL	723000	*****	0.8	133	1.1	280
VA0004162	10-Apr-15	001	737	AOX (Adsorbable Orga	-	NL	723000	*****	-	133	-	280
VA0004162	10-Dec-15	001	737	AOX (Adsorbable Orga	-	NL	723000	*****	-	133	-	280
VA0004162	10-Jan-10	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Feb-10	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Mar-10	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Apr-10	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Dec-10	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Jan-11	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Feb-11	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Mar-11	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Apr-11	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****
VA0004162	10-Dec-11	001	758	FLOW, SEASONAL	-	*****	14000	*****	-	*****	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg qmax	Lim-Max cmin	Lim-Min cavg	Lim-Avg cmax	Lim-Max	
VA0004162	10-Jan-12 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-13 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-14 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15 001		758	FLOW, SEASONAL	-	*****	-	*****	-	*****	

VA0004162	10-Apr-15	001	758	FLOW, SEASONAL	-		*****	-	14000	-	*****	-	*****	-		*****
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax		Lim-Max	
VA0004162	10-Dec-15	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-		*****	
VA0004162	10-Jan-10	103	001	FLOW	1.8	NL	2.1	NL	-	*****	-	*****	-		*****	
VA0004162	10-Feb-10	103	001	FLOW	1.78	NL	2.13	NL	-	*****	-	*****	-		*****	
VA0004162	10-Mar-10	103	001	FLOW	1.73	NL	2.09	NL	-	*****	-	*****	-		*****	
VA0004162	10-Apr-10	103	001	FLOW	1.57	NL	1.95	NL	-	*****	-	*****	-		*****	
VA0004162	10-May-10	103	001	FLOW	1.89	NL	2.15	NL	-	*****	-	*****	-		*****	
VA0004162	10-Jun-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-		*****	
VA0004162	10-Jul-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-		*****	
VA0004162	10-Aug-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-		*****	
VA0004162	10-Sep-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-		*****	
VA0004162	10-Oct-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-		*****	
VA0004162	10-Nov-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-		*****	
VA0004162	10-Dec-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-		*****	
VA0004162	10-Sep-12	103	001	FLOW	2.71	NL	3.11	NL	-	*****	-	*****	-		*****	
VA0004162	10-Oct-12	103	001	FLOW	2.86	NL	3.06	NL	-	*****	-	*****	-		*****	
VA0004162	10-Nov-12	103	001	FLOW	2.84	NL	3.85	NL	-	*****	-	*****	-		*****	
VA0004162	10-Dec-12	103	001	FLOW	2.85	NL	3.01	NL	-	*****	-	*****	-		*****	

[illegible]

VA0004162	10-Jul-14	103		001	FLOW		2.75	NL	2.91	NL		-		*****	-		*****	-			*****
Permit No	Due Date	outfall	pram		Parameter Description	qavg														Lim-Max	
VA0004162	10-Aug-14	103	001		FLOW	2.85	NL	NL	3.06	NL		-		*****	-		*****	-		*****	
VA0004162	10-Sep-14	103	001		FLOW	2.93	NL	NL	3.22	NL		-		*****	-		*****	-		*****	
VA0004162	10-Oct-14	103	001		FLOW	3.00	NL	NL	3.31	NL		-		*****	-		*****	-		*****	
VA0004162	10-Nov-14	103	001		FLOW	2.85	NL	NL	3.19	NL		-		*****	-		*****	-		*****	
VA0004162	10-Dec-14	103	001		FLOW	2.76	NL	NL	3.23	NL		-		*****	-		*****	-		*****	
VA0004162	10-Jan-15	103	001		FLOW	2.75	NL	NL	3.09	NL		-		*****	-		*****	-		*****	
VA0004162	10-Feb-15	103	001		FLOW	2.73	NL	NL	3.10	NL		-		*****	-		*****	-		*****	
VA0004162	10-Mar-15	103	001		FLOW	2.73	NL	NL	3.21	NL		-		*****	-		*****	-		*****	
VA0004162	10-Apr-15	103	001		FLOW	2.69	NL	NL	2.99	NL		-		*****	-		*****	-		*****	
VA0004162	10-May-15	103	001		FLOW	2.75	NL	NL	3.15	NL		-		*****	-		*****	-		*****	
VA0004162	10-Jun-15	103	001		FLOW	2.81	NL	NL	3.21	NL		-		*****	-		*****	-		*****	
VA0004162	10-Jul-15	103	001		FLOW	-	NL	NL	-	NL		-		*****	-		*****	-		*****	
VA0004162	10-Aug-15	103	001		FLOW	-	NL	NL	-	NL		-		*****	-		*****	-		*****	
VA0004162	10-Sep-15	103	001		FLOW	-	NL	NL	-	NL		-		*****	-		*****	-		*****	
VA0004162	10-Oct-15	103	001		FLOW	-	NL	NL	-	NL		-		*****	-		*****	-		*****	
VA0004162	10-Nov-15	103	001		FLOW	-	NL	NL	-	NL		-		*****	-		*****	-		*****	
VA0004162	10-Dec-15	103	001		FLOW	-	NL	NL	-	NL		-		*****	-		*****	-		*****	

	10-Jan-10	103	210	PENTACHLOROPHENOL	-	*****	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max		
VA0004162	10-Jan-13	103	210	PENTACHLOROPHENOL	-	*****	-	*****	-	*****	-	*****	ND	ND		
VA0004162	10-Jan-14	103	210	PENTACHLOROPHENOL	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-15	103	210	PENTACHLOROPHENOL	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-10	103	223	CHLOROFORM (AS CH43)	-	3650	43	6100	-	*****	5	NL	5	NL		
VA0004162	10-Jan-13	103	223	CHLOROFORM (AS CH16.2)	-	3650	16.2	6100	-	*****	5.55	NL	5.55	NL		
VA0004162	10-Jan-14	103	223	CHLOROFORM (AS CH0)	-	3650	0	6100	-	*****	<QL	NL	<QL	NL		
VA0004162	10-Jan-15	103	223	CHLOROFORM (AS CH181)	-	3650	181	6100	-	*****	17.1	NL	17.1	NL		
VA0004162	10-Jan-10	103	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT		
VA0004162	10-Jan-13	103	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	*****	ND	ND		
VA0004162	10-Jan-14	103	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-15	103	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-10	103	307	2,3,7,8-TETRACHLOROCYCLOHEXANE	-	*****	-	*****	-	*****	-	*****	<QL	31.9		
VA0004162	10-Jan-13	103	307	2,3,7,8-TETRACHLOROCYCLOHEXANE	-	*****	-	*****	-	*****	-	*****	<QL	31.9		
VA0004162	10-Jan-14	103	307	2,3,7,8-TETRACHLOROCYCLOHEXANE	-	*****	-	*****	-	*****	-	*****	<QL	31.9		
VA0004162	10-Jan-15	103	307	2,3,7,8-TETRACHLOROCYCLOHEXANE	-	*****	-	*****	-	*****	-	*****	<QL	31.9		
VA0004162	10-Jan-10	103	601	2,4,5-TRICHLOROPHENOL	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT		
VA0004162	10-Jan-13	103	601	2,4,5-TRICHLOROPHENOL	-	*****	-	*****	-	*****	-	*****	ND	ND		

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VA0004162	10-Jan-14	103	601	2,4,5-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	ND	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-15	103	601	2,4,5-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	602	2,4,6-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	602	2,4,6-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	602	2,4,6-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	602	2,4,6-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	731	4,5,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	731	4,5,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	731	4,5,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	731	4,5,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	732	3,4,6-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	732	3,4,6-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	732	3,4,6-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	732	3,4,6-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	733	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	733	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	733	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	733	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	ND	

VA0004162	10-Jan-10	103	734	3,4,5-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max		
VA0004162	10-Jan-13	103	734	3,4,5-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	ND	ND		
VA0004162	10-Jan-14	103	734	3,4,5-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-15	103	734	3,4,5-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-10	103	735	2,3,4,6-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT		
VA0004162	10-Jan-13	103	735	2,3,4,6-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	ND	ND		
VA0004162	10-Jan-14	103	735	2,3,4,6-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-15	103	735	2,3,4,6-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-10	103	736	3,4,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT		
VA0004162	10-Jan-13	103	736	3,4,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	ND	ND		
VA0004162	10-Jan-14	103	736	3,4,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-15	103	736	3,4,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND		
VA0004162	10-Jan-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	12.3	NL	-	*****		
VA0004162	10-Feb-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	12.5	NL	-	*****		
VA0004162	10-Mar-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	13.5	NL	-	*****		
VA0004162	10-Apr-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	13.1	NL	-	*****		
VA0004162	10-May-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	11.8	NL	-	*****		
VA0004162	10-Jun-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****		



VA0004162	10-Jul-10	103	747	KAPPA NUMBER MON -		*****	-	Lim-Avg	qavg	Lim-Max	cmn	Lim-Min	cavg	Lim-Avg	cmx	*****	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmn	Lim-Min	cavg	Lim-Avg	cmx	*****	Lim-Max		
VA0004162	10-Aug-10	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	-	NL	-	NL	-	*****	
VA0004162	10-Sep-10	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	-	NL	-	NL	-	*****	
VA0004162	10-Oct-10	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	-	NL	-	NL	-	*****	
VA0004162	10-Nov-10	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	-	NL	-	NL	-	*****	
VA0004162	10-Dec-10	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	-	NL	-	NL	-	*****	
VA0004162	10-Sep-12	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	10.5	NL	-	NL	-	*****	
VA0004162	10-Oct-12	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	7.49	NL	-	NL	-	*****	
VA0004162	10-Nov-12	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	7.4	NL	-	NL	-	*****	
VA0004162	10-Dec-12	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	8.6	NL	-	NL	-	*****	
VA0004162	10-Jan-13	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	9.4	NL	-	NL	-	*****	
VA0004162	10-Feb-13	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	7.7	NL	-	NL	-	*****	
VA0004162	10-Mar-13	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	9.2	NL	-	NL	-	*****	
VA0004162	10-Apr-13	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	7.44	NL	-	NL	-	*****	
VA0004162	10-May-13	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	10.7	NL	-	NL	-	*****	
VA0004162	10-Jun-13	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	11.0	NL	-	NL	-	*****	
VA0004162	10-Jul-13	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	12.2	NL	-	NL	-	*****	
VA0004162	10-Aug-13	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	12.78	NL	-	NL	-	*****	

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VA0004162	10-Sep-13	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	12.37	NL	-	*****	
VA0004162	10-Oct-13	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	11.5	NL	-	*****	
VA0004162	10-Nov-13	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	11.2	NL	-	*****	
VA0004162	10-Dec-13	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	10.9	NL	-	*****	
VA0004162	10-Jan-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	10.14	NL	-	*****	
VA0004162	10-Feb-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.87	NL	-	*****	
VA0004162	10-Mar-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Apr-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.7	NL	-	*****	
VA0004162	10-May-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.98	NL	-	*****	
VA0004162	10-Jun-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.8	NL	-	*****	
VA0004162	10-Jul-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.8	NL	-	*****	
VA0004162	10-Aug-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.7	NL	-	*****	
VA0004162	10-Sep-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.8	NL	-	*****	
VA0004162	10-Oct-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Nov-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.8	NL	-	*****	
VA0004162	10-Dec-14	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Jan-15	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Feb-15	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Mar-15	103	747	KAPPA NUMBER MON -	*****	-	*****	-	*****	10.01	NL	-	*****	

VA0004162	10-Apr-15	103	747	KAPPA NUMBER MON -		*****	-	*****	-	*****	9.6	NL	-	*****
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmIn	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-May-15	103	747	KAPPA NUMBER MON -	-	*****	-	*****	-	*****	9.6	NL	-	*****
VA0004162	10-Jun-15	103	747	KAPPA NUMBER MON -	-	*****	-	*****	-	*****	9.2	NL	-	*****
VA0004162	10-Jul-15	103	747	KAPPA NUMBER MON -	-	*****	-	*****	-	*****	-	NL	-	*****
VA0004162	10-Aug-15	103	747	KAPPA NUMBER MON -	-	*****	-	*****	-	*****	-	NL	-	*****
VA0004162	10-Sep-15	103	747	KAPPA NUMBER MON -	-	*****	-	*****	-	*****	-	NL	-	*****
VA0004162	10-Oct-15	103	747	KAPPA NUMBER MON -	-	*****	-	*****	-	*****	-	NL	-	*****
VA0004162	10-Nov-15	103	747	KAPPA NUMBER MON -	-	*****	-	*****	-	*****	-	NL	-	*****
VA0004162	10-Dec-15	103	747	KAPPA NUMBER MON -	-	*****	-	*****	-	*****	-	NL	-	*****
VA0004162	10-Jan-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	12.7	20	-	*****
VA0004162	10-Feb-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	12.7	20	-	*****
VA0004162	10-Mar-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	12.7	20	-	*****
VA0004162	10-Apr-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	12.5	20	-	*****
VA0004162	10-May-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	12.4	20	-	*****
VA0004162	10-Jun-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	-	20	-	*****
VA0004162	10-Jul-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	-	20	-	*****
VA0004162	10-Aug-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	-	20	-	*****
VA0004162	10-Sep-10	103	749	KAPPA NUMBER ANNI -	-	*****	-	*****	-	*****	-	20	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Oct-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Nov-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Dec-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Sep-12	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Oct-12	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Nov-12	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Dec-12	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Jan-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Feb-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Mar-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Apr-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-May-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Jun-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Jul-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Aug-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Sep-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.96	20	-	*****	
VA0004162	10-Oct-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.2	20	-	*****	
VA0004162	10-Nov-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.5	20	-	*****	

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max
VA0004162	10-Dec-13	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.68	20	-	*****
VA0004162	10-Jan-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.73	20	-	*****
VA0004162	10-Feb-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.92	20	-	*****
VA0004162	10-Mar-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	11.0	20	-	*****
VA0004162	10-Apr-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	11.0	20	-	*****
VA0004162	10-May-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.97	20	-	*****
VA0004162	10-Jun-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.8	20	-	*****
VA0004162	10-Jul-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.6	20	-	*****
VA0004162	10-Aug-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.3	20	-	*****
VA0004162	10-Sep-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.1	20	-	*****
VA0004162	10-Oct-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	10.0	20	-	*****
VA0004162	10-Nov-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	9.8	20	-	*****
VA0004162	10-Dec-14	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	9.8	20	-	*****
VA0004162	10-Jan-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	9.7	20	-	*****
VA0004162	10-Feb-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	9.7	20	-	*****
VA0004162	10-Mar-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	9.73	20	-	*****
VA0004162	10-Apr-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	9.7	20	-	*****
VA0004162	10-May-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	9.7	20	-	*****

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Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jun-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	9.7	20	-	*****	
VA0004162	10-Jul-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Aug-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Sep-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Oct-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Nov-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Dec-15	103	749	KAPPA NUMBER ANNI -		*****	-	*****	-	*****	-	20	-	*****	